

PUBLIC VERSION

UNITED STATES INTERNATIONAL TRADE COMMISSION

Washington, D.C.

In the Matter of

**CERTAIN CLOUD-CONNECTED WOOD-
PELLET GRILLS AND COMPONENTS
THEREOF**

Inv. No. 337-TA-1237

**INITIAL DETERMINATION ON VIOLATION OF SECTION 337
AND RECOMMENDED DETERMINATION ON REMEDY AND BONDING**

Chief Administrative Law Judge Charles E. Bullock

(December 6, 2021)

Appearances:

For Complainant Traeger Pellet Grills LLC:

Jay H. Reiziss of McDermott Will & Emery LLP in Washington, DC and Michael P. Chu, Charles M. McMahon, Amol A. Parikh, James M. Oehler, Thomas M. DaMario, Ewa A. Wojciechowska, and Colin J. Stalter of McDermott Will & Emery LLP in Chicago, IL.

For Respondent GMG Products LLC:

David A. Lowe and Lawrence D. Graham of Lowe Graham Jones PLLC in Seattle, WA and Andrew F. Pratt of Devlin Law Firm LLC in Wilmington, DE.

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Pursuant to the Notice of Investigation (Dec. 28, 2020) and Commission Rule 210.42, this is the Chief Administrative Law Judge's final initial determination and recommended determination in the matter of *Certain Cloud-Connected Wood Pellet Grills and Components Thereof*, Commission Investigation No. 337-TA-1237. 19 C.F.R. § 210.42(a)(1)(i). For the reasons discussed herein, it is the undersigned's final initial determination in this investigation that there is a violation of section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, in the importation into the United States, the sale for importation, and/or the sale within the United States after importation of certain cloud-connected wood-pellet grills and components thereof.

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The following abbreviations may be used in this Initial Determination:

Tr.	Transcript
WS	Witness Statement
DWS	Direct Witness Statement
RWS	Rebuttal Witness Statement
JX	Joint Exhibit
CX	Complainant's exhibit
CPX	Complainant's physical exhibit
CDX	Complainant's demonstrative exhibit
RX	Respondent's exhibit
RPX	Respondent's physical exhibit
RDX	Respondent's demonstrative exhibit
CPHB	Complainant's pre-hearing brief
CIB	Complainant's initial post-hearing brief
CRB	Complainant's reply post-hearing brief
RPHB	Respondent's pre-hearing brief
RIB	Respondent's initial post-hearing brief (revised)
RRB	Respondent's reply post-hearing brief

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I. BACKGROUND

A. Procedural History

The Commission instituted this investigation in response to a complaint filed by Complainant Traeger Pellet Grills LLC alleging violations of section 337 of the Tariff Act of 1930, as amended, by reason of infringement of certain claims of U.S. Patent No. 10,158,720 (“the ’720 patent”) and U.S. Patent No. 10,218,833 (“the ’833 patent”). Notice of Investigation (Dec. 28, 2020). The investigation was instituted upon publication of the Notice of Investigation in the *Federal Register* on Monday, January 4, 2021. 86 Fed. Reg. 129-30 (2021); *see* 19 C.F.R. § 210.10(b).

Respondent GMG Products LLC filed a response to the Complaint and Notice of Investigation on January 26, 2021. The response to the complaint was amended to assert additional affirmative defenses pursuant to Order No. 21 (July 27, 2021).

Pursuant to Order No. 26 (Aug. 10, 2021), summary determination was granted with respect to the economic prong of the domestic industry requirement. *See* Comm’n Notice (Sept. 9, 2021) (determining not to review). The ’833 patent was terminated from the investigation pursuant to Order No. 28 (Sept. 3, 2021), granting a motion for summary determination of non-infringement. *See* Comm’n Notice and Opinion (Oct. 28, 2021) (affirming summary determination with modification).

An evidentiary hearing was held over four days from September 13-16, 2021. The parties filed initial post-hearing briefs on October 6, 2021, and the parties reply post-hearing briefs on October 21, 2021.¹

¹ Complainant’s initial post-hearing brief is cited herein as “CIB.” Complainants’ reply post-hearing brief is cited herein as “CRB.” Respondents’ revised initial post-hearing brief is cited

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B. Private Parties

Complainant Traeger Pellet Grills LLC (“Traeger”) is a Delaware Corporation with its principal place of business in Salt Lake City, Utah. Complaint ¶ 11; CIB at 5-6. Respondent GMG Products LLC (“GMG”) is a Nevada limited liability company with an address in Carson City, Nevada. Complaint Exhibit 5; Response to Complaint ¶ 14. Both Traeger and GMG are in the business of making and selling pellet grills. CIB at 5-6; RIB at 2.

C. Products at Issue

The products at issue are cloud-connected wood-pellet grills and components thereof.

1. Accused Products

The accused products are GMG’s cloud-connected wood-pellet grills with “WiFi Smart Control”, which includes all of GMG’s “Prime Grills” (“Jim Bowie Prime,” “Daniel Boone Prime,” Davy Crockett Prime,” “Big Pig Trailer Prime,” Peak, Ledge, and Trek grills) and certain “Choice” grills (“Jim Bowie Choice” and “Daniel Boone Choice”) (collectively, the “Accused Products”) and related components. *See* JX-0266C (importation stipulation). GMG has stipulated to the importation of the Accused Products. JX-0266C.

2. Domestic Industry Products

The domestic industry products are Traeger’s cloud-connected wood-pellet grills, which include the Pro 575, Pro 780, Ironwood 650, Ironwood 885, Timberline 850, Timberline 1300, Silverton 620, Silverton 810, and Century 885 grills (the “Traeger DI Grills”). *See* CX-0838C (Shoemake DWS) at Q/A 199.

herein as “RIB.” *See* Order No. 37 (Oct. 13, 2021) (granting leave to file revised post-hearing brief). Respondents’ reply post-hearing brief is cited herein as “RRB.”

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D. Testimonial Evidence

At the hearing, the parties presented testimony through witness statements and live examination, and designated deposition transcripts for several witnesses were also received into evidence.

1. Fact Witnesses

The first witness at the hearing was Traeger executive Michael Colston, the named inventor of the '720 patent. CX-0842 (Colston DWS); Tr. at 25-163; *see* RX-0317C (Colston Dep. Tr.). Traeger also presented testimony from David Johnson, a manager at third-party Dorner Works Ltd. CX-1010C (Johnson RWS); Tr. at 370-449. Traeger further submitted testimony from Traeger director Bart Strong and accountant Andrew Rust. CX-0839C (Strong DWS); CX-0841C (Rust DWS); *see* RX-0320C (Strong Dep. Tr.).

GMG's first witness was David Baker, one of GMG's co-founders. RX-0316C (Baker DWS); RX-0366 (Baker RWS); Tr. at 251-68; *see* CX-0426C (Baker Dep. Tr.); CX-0844C (Baker Dep. Tr.). GMG also presented testimony from David Scott, a director at third-party Fyresite. RX-0338C (Scott RWS); Tr. at 269-88; *see* CX-0441C (Scott Dep. Tr.).

2. Expert Witnesses

Traeger relies on the expert testimony of Dr. Matthew Shoemake for infringement and invalidity issues. CX-0838C (Shoemake DWS); CX-1005C (Shoemake RWS); Tr. at 174-250, 453-544. Traeger relies on the expert testimony of Thomas Vander Veen for remedy and bond. CX-0840C (Vander Veen DWS).

GMG relies on the expert testimony of David Williams for infringement and invalidity issues. RX-0315C (Williams DWS); RX-0334C (Williams RWS); Tr. at 289-355, 451-53; *see* CX-0445C (Williams Dep. Tr.).

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3. Deposition Designations

Traeger submitted designated deposition transcripts for Jason Baker (CX-0843C), David Scott (CX-0845C), and Nishan Pilibosian (CX-0846C). GMG submitted designated deposition transcripts for Daniel Altenritter (RX-0319C), Gregory Amero (RX-0322C), Chris Bristol (RX-323C), Chris Capehart (RX-0324C), Ryan Comingdeer (RX-0325C), Theodore Conrad (RX-0326C), Michael Frodsham (RX-0327C), Wes Gilpin (RX-0328C), Shawn Isenhoff (RX-0329C), Michael Nellenbach (RX-0331C), and Bob Tucker (RX-0332C). Both Traeger and GMG designated portions of the deposition transcript of Matt Czach (CX-0433C; RX-0318C).

II. THE '720 PATENT

The '720 patent is entitled “Cloud System for Controlling Outdoor Grill with Mobile Application” and names inventor Michael Colston. JX-0001, (“the '720 patent”). The patent issued from U.S. Patent Application No. 15,954,199, which was filed on April 16, 2018. *Id.* This application is a continuation of U.S. Application No. 15/511,319, filed on April 8, 2016, and a continuation-in-part of U.S. Application No. 15/510,966, filed on March 29, 2016, and U.S. Application No. 15/114,744, filed on June 24, 2016. *Id.* at 1:5-25. The '720 patent is assigned to Traeger. JX-0003.

A. Specification

The specification of the '720 patent describes “a cloud computing platform” for “communicating with and controlling operation of electronically-controlled appliances.” '720 patent at 4:25-27. In one embodiment, “a cloud service 301 links various devices including a smoker/grill 302 and a smart phone 303 or other electronic computing device.” *Id.* at 9:40-43.

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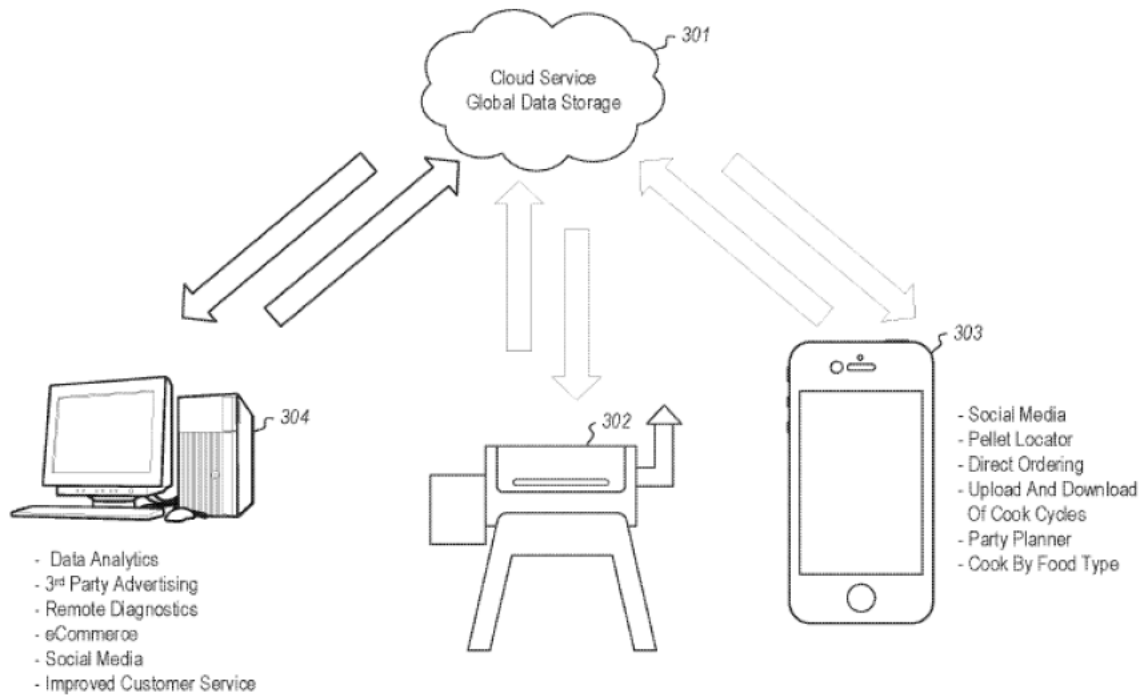


Figure 3

The specification describes a “receiver 105” that is “configured to receive inputs from computing systems,” including a “first input 115 indicating that an electronically-controlled appliance is permitted to communicate with the cloud computing platform.” *Id.* at 7:27-31. The specification also describes a “notification generator 106” that is “configured to generate notifications (e.g. 112) that are to be sent to software applications such as software application 114 running on mobile computing device 113.” *Id.* at 7:32-36. The specification further describes a “transmitter 107” that “may be configured to send a generated notification 112 to software application 114, where the notification indicates that the cloud computing platform 101 is communicably connected to the electronically-controlled appliance 120.” *Id.* at 7:39-43.

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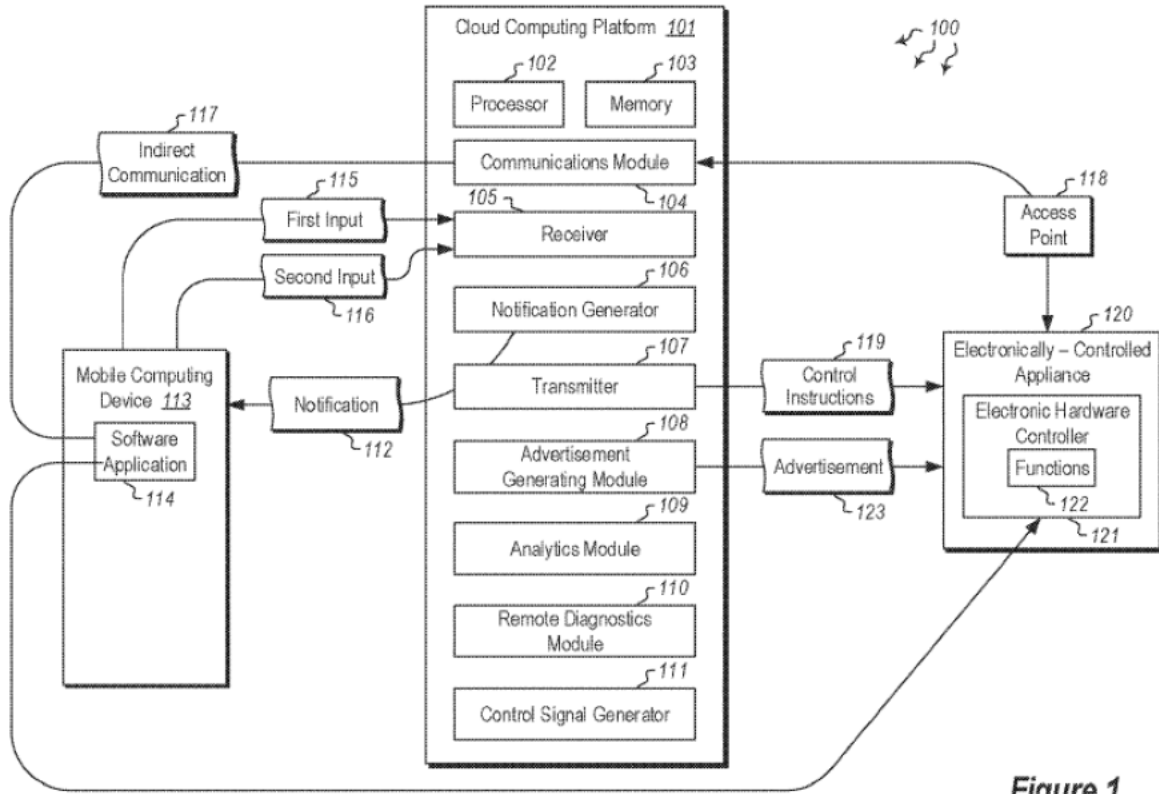


Figure 1

The specification further describes a method “for communicating with and controlling operation of electronically-controlled appliances.” *Id.* at 11:47-49. Five steps of this method are depicted in Figure 5:

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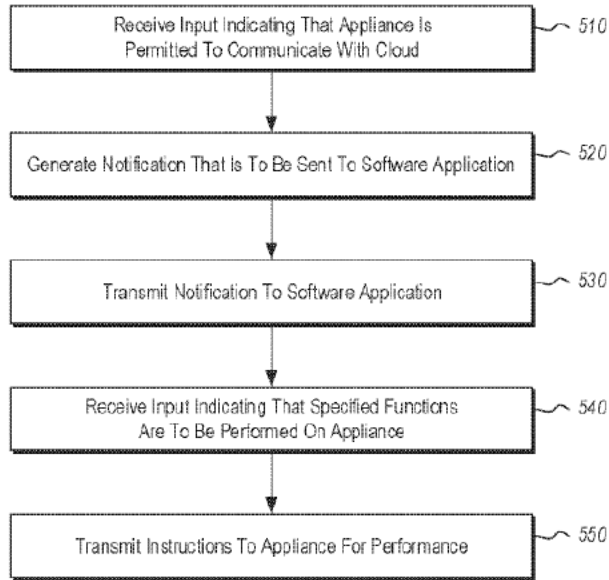


Figure 5

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B. Asserted Claims

Traeger asserts claims 1, 2, 12, 16, 21, and 22 of the '720 patent. Claim 1 is an independent claim for a “cloud computing platform.”

1. A cloud computing platform for communicating with and controlling operation of an electronically-controlled appliance comprising an outdoor barbecue grill or outdoor barbecue smoker, the cloud computing platform having at least one hardware processor, the cloud computing platform comprising:
 - a receiver configured to receive inputs from one or more computing systems including at least a first input indicating that an electronically-controlled appliance is in network communication with the cloud computing platform, the electronically-controlled appliance comprising an outdoor barbecue grill or outdoor barbecue smoker;
 - a notification generator configured to generate notifications that are to be sent to one or more software applications being executed at a mobile device, the one or more software applications being configured to control one or more functions of the electronically-controlled appliance;
 - a transmitter configured to send at least one generated notification to at least one of the software applications selected from the one or more software applications, the generated notification indicating that the cloud computing platform is communicably connected to the electronically-controlled appliance;
 - the receiver receiving a second input from the at least one software application indicating that one or more specified functions are to be performed on the electronically-controlled appliance; and
 - the transmitter sending one or more instructions to the electronically-controlled appliance to perform the one or more specified functions, the functions being interpreted and carried out by a hardware controller on the electronically-controlled appliance.

'720 patent at 15:36-16:2. Claim 2 depends from claim 1.

2. The cloud computing platform of claim 1, wherein the cloud computing platform communicates directly with the electronically-controlled appliance via an access point within range of the electronically-controlled appliance.

Id. at 16:3-6.

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Claim 12 is another independent claim for a “cloud computing platform.”

12. A cloud computing platform for communicating with and controlling operation of an electronically-controlled appliance comprising an outdoor barbecue grill or outdoor barbecue smoker, the cloud computing platform having at least one hardware processor, the cloud computing platform comprising:

a receiver at the cloud computing platform configured to receive inputs from one or more mobile devices including at least a first input indicating that the electronically-controlled appliance is in network communication with the cloud computing platform;

wherein the one or more mobile devices have previously established an initial, direct connection with the electronically-controlled appliance, and wherein the one or more mobile devices and the electronically-controlled appliance maintain independent connections to the cloud computing platform over the internet;

the receiver at the cloud computing platform receiving a second input from the one or more mobile devices indicating that one or more end user specified functions are to be performed by the electronically-controlled appliance;

a control signal generator configured to generate control signals that are to be sent to the electronically-controlled appliance, the control signals being configured to control functions of the electronically-controlled appliance according to the received second input; and

a transmitter configured to transmit the generated control signals directly to the electronically-controlled appliance over the internet for performance of the one or more specified functions received from the one or more mobile devices, the functions being interpreted and carried out by a hardware controller on the electronically-controlled appliance.

Id. at 16:54-17:20.

Claim 16 is an independent claim that is a method claim.

16. A method for remotely controlling an electronically-controlled appliance comprising an outdoor barbecue grill or outdoor barbecue smoker via one or more mobile devices and an internet-connected network server, the electronically-controlled appliance having at least one hardware controller, the method comprising:

receiving at a network server of a cloud computing platform a first input from one or more mobile devices, the first input indicating that at least a first electronically-controlled appliance is in network communication with a

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cloud computing platform, the first electronically-controlled appliance comprising an outdoor barbecue grille or outdoor barbecue smoker;

generating a notification at the network server that is to be sent to a software application being executed at a mobile device, the software application being configured to remotely control one or more functions of the electronically-controlled appliance over the internet;

transmitting the generated notification from the network server to the software application at the mobile device, the generated notification indicating that the cloud computing platform is communicably connected to the electronically-controlled appliance;

receiving at the network server a second input from the software application, the second input indicating that one or more specified functions initiated by the user on the mobile device are to be performed on the electronically-controlled appliance; and

transmitting from the network server to the electronically-controlled appliance over the internet one or more instructions to perform the one or more specified functions, the functions being interpreted and carried out by a hardware controller on the electronically-controlled appliance.

Id. at 17:55-18:21. Claims 21 and 22 depend from claim 16.

21. The method of claim 16, wherein the network server is connected to the one or more mobile devices and the electronically-controlled appliance over the internet via separate internet connections.

22. The method of claim 16, wherein the network server is connected to the one or more mobile devices and the electronically-controlled appliance over the internet.

Id. at 18:46-52.

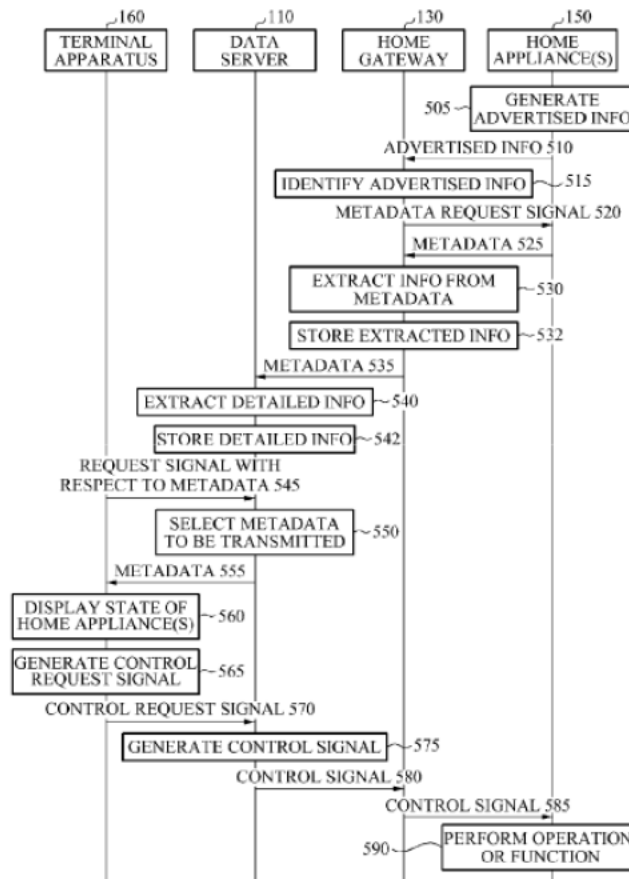
C. Post-Grant Review

The U.S. Patent Trial and Appeal Board (“PTAB”) addressed the ’720 patent in two post-grant review proceedings: *GMG Products LLC v. Traeger Pellet Grills LLC*, PTAB Case No. PGR2019-00024, Final Written Decision (Sept. 27, 2020) (“PGR2019-00024 Decision”), and PTAB Case No. PGR2019-0036, Final Written Decision (Sept. 17, 2020) (“PGR2019-0036 Decision”). *See* RX-0259 (PGR2019-0024 Docket); RX-0260 (PGR2019-0036 Docket).

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In both PGR2019-0024 and PGR2019-0036, the key prior art reference was U.S. Patent Application Publication No. 2015/0134727 A1, naming inventors Lee *et al.* (JX-0258, “Lee”). PGR2019-0024 Decision at 16-20; PGR2019-0036 Decision at 17-20. Lee is titled “Cloud-Based Data Server Providing Home Appliance Management Service and Method Thereof,” and its Abstract describes a “cloud-based data server providing a user of a terminal apparatus with a management service for one or more home appliances” so that “the user of the terminal apparatus may remotely monitor states of the home appliances or control actions or operations of the home appliances in a home network system.” JX-0258. Figure 5 of Lee is a signal flow chart illustrating the signals generated and transmitted to monitor home appliances.

FIG. 5



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Id. at Fig. 5. In Lee, “each of the home appliances 150 may generate information,” which “may correspond to metadata associated with each home appliance.” *Id.* at ¶ 175. In operation 525, that metadata is transmitted from the home appliance to the home gateway’s device subscription function module (DSFM). *Id.* at ¶ 187. Then, in operation 535, home gateway 130 “may transfer the metadata from the home appliances 150 to . . . the data server 110.” *Id.* at ¶ 194. Next, in operation 545, data server 110’s monitoring service module (MSM) “may receive, from the terminal apparatus 160, a request signal with respect to the metadata.” *Id.* at ¶ 201. Subsequently, in operation 550, “[the data server 110’s] MSM 245 may transfer the received metadata to the terminal apparatus 160.” *Id.* at ¶ 203. “The metadata transferred to the terminal apparatus 160 may include information on states of the home appliances 150.” *Id.* at ¶ 203. Lee thus provides “a service for monitoring the home appliances 150 to the user of the terminal apparatus 160.” *Id.* at ¶ 66.

The PTAB considered GMG’s invalidity contentions with respect to Lee, which identified terminal apparatus 160 as the claimed “computing system” and data server 110 as the claimed “receiver” that receives a “first input indicating that at least a first electronically-controlled appliance is in network communication” in step 545 of Lee. PGR2019-0024 Decision at 26-27. In response to GMG’s contentions, Traeger argued that step 545 is a “request” that does not indicate whether the appliance is in network communication, and the PTAB agreed, finding “no disclosure in Lee that terminal apparatus 160 knows the appliance’s state when requesting metadata in step 545.” *Id.* at 29. The PTAB also considered GMG’s contention that metadata generated by the home appliance 150 and received by data server 110 in step 535 indicates that the appliance is in network communication, finding that this was not relevant to the “first input” limitation because the metadata does not originate from terminal apparatus 160,

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which GMG had identified as the claimed “computing system.” *Id.* at 31-32. The PTAB thus determined that Lee failed to teach the “receiver” limitation of claims 1 and 16. *Id.* at 32-33; *see also* PGR2019-0035 Decision at 24-33.²

D. Claim Construction

The parties agreed to construe the term “cloud computing platform” to mean “a platform for enabling on-demand network access to a shared pool of configurable computing resources.” Order No. 22 at 27. In the *Markman* order, the term “a first input indicating that the electronically-controlled appliance is in network communication” was construed to mean an input indicating that the appliance is communicating over a network. *Id.* at 28-30. The term “notification indicating that the cloud computing platform is communicably connected” was construed to mean a notification indicating that the grill is connected for communication. *Id.* at 30-32. The term “one or more mobile devices and the electronically-controlled appliance maintain independent connections to the cloud computing platform” was construed to mean that the one or more mobile devices and the electronically-controlled appliance each communicate directly to the cloud computing platform. *Id.* at 32-34.

² For claims 23-29 of the ’720 patent, the PTAB found that Lee rendered the claims obvious in combination with additional references: U.S. Patent Application Publication No. 2015/0025687 A1 (JX-0259, “Henderson”), U.S. Patent Application Publication No. 2016/0072638 A1 (JX-0260, “Amer”), and U.S. Patent No. 9,759,429 (JX-0261, “Tucker”). PGR2019-0024 Decision at 34-50. These claims of the ’720 patent describe “an electronic hardware controller” of an “outdoor cooking device,” which makes an “initial direct connection with a mobile device” and then “communicate[s] directly with the cloud computing platform over the internet to send a first input indicating that the outdoor cooking device is in network communication with the cloud computing platform.” ’720 patent at claim 23. The PTAB found that this “initial direct connection” limitation was disclosed in Amer. PGR2019-0024 Decision at 34-43.

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III. JURISDICTION

To have the power to decide a case, a court or agency must have both subject matter jurisdiction and jurisdiction over either the parties or the property involved. 19 U.S.C. § 1337; *Certain Steel Rod Treating Apparatus and Components Thereof*, Inv. No. 337-TA-97, Comm'n Mem. Op., 215 U.S.P.Q. 229, 231 (1981).

A. Subject Matter Jurisdiction

Section 337 confers subject matter jurisdiction on the Commission to investigate, and if appropriate, to provide a remedy for, unfair acts and unfair methods of competition in the importation, the sale for importation, or the sale after importation of articles into the United States. *See* 19 U.S.C. §§ 1337(a)(1)(B) and (a)(2). Traeger submits that the Commission has subject matter jurisdiction over this investigation based on the allegations that the accused products are imported into the United States. CIB at 11. GMG argues that the Commission does not have jurisdiction because the Accused Products do not infringe any valid and enforceable patent, RIB at 11, but these arguments go to the determination on violation, not jurisdiction. *See Amgen Inc. v. Int'l Trade Comm'n*, 565 F.3d 846, 854 (Fed. Cir. 2009) (“As is very common in situations where a tribunal’s subject matter jurisdiction is based on the same statute which gives rise to the federal right, the jurisdictional requirements of section 1337 mesh with the factual requirements necessary to prevail on the merits. In such a situation, the Supreme Court has held that the tribunal should assume jurisdiction and treat (and dismiss on, if necessary) the merits of the case.”). The undersigned thus finds that the Commission has subject matter jurisdiction based on Traeger’s allegations that the accused products are imported and infringe a valid and enforceable patent. *Id.*

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B. Personal Jurisdiction

GMG has submitted to the personal jurisdiction of the Commission by answering the Complaint and Notice of Investigation, participating in discovery, appearing at hearings, and filing motions and briefs. *See Certain Miniature Hacksaws*, Inv. No. 337-TA-237, USITC Pub. No. 1948, Initial Determination at 4, 1986 WL 379287, *1 (Oct. 15, 1986), *not reviewed in relevant part by Comm'n Action and Order*, 1987 WL 450871 (Jan. 15, 1987).

C. In Rem Jurisdiction

The Commission has *in rem* jurisdiction over the accused products by virtue of their importation into the United States. *See Sealed Air Corp. v. U.S. Int'l Trade Comm'n*, 645 F.2d 976, 985-86 (C.C.P.A. 1981) (holding that the ITC's jurisdiction over imported articles is sufficient to exclude such articles). GMG has stipulated to the importation of the Accused Products. JX-0266C.

IV. INFRINGEMENT

Traeger alleges that the Accused Products infringe claims 1, 2, 12, 16, 21, and 22 of the '720 patent. CIB at 14-47.

A. Legal Standards

Section 337(a)(1)(B)(i) prohibits “the importation into the United States, the sale for importation, or the sale within the United States after importation by the owner, importer, or consignee, of articles that – (i) infringe a valid and enforceable United States patent.” 19 U.S.C. § 1337(a)(1)(B)(i). The Commission has held that the word “infringe” in Section 337(a)(1)(B)(i) “derives its legal meaning from 35 U.S.C. § 271, the section of the Patent Act that defines patent infringement.” *Certain Electronic Devices with Image Processing Systems, Components Thereof, and Associated Software*, Inv. No. 337-TA-724, Comm'n Op. at 13-14 (December 21, 2011).

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Infringement must be proven by a preponderance of the evidence. *SmithKline Diagnostics, Inc. v. Helena Labs. Corp.*, 859 F.2d 878, 889 (Fed. Cir. 1988). A preponderance standard “requires proving that infringement was more likely than not to have occurred.” *Warner-Lambert Co. v. Teva Pharm. USA, Inc.*, 418 F.3d 1326, 1341 n.15 (Fed. Cir. 2005).

1. Claim Construction

“An infringement analysis entails two steps. The first step is determining the meaning and scope of the patent claims asserted to be infringed. The second step is comparing the properly construed claims to the device accused of infringing.” *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995) (*en banc*), *aff’d*, 517 U.S. 370 (1996) (citation omitted). The construction of claims is simply a way of elaborating the normally terse claim language[] in order to understand and explain, but not to change, the scope of the claims.” *Embrex, Inc. v. Serv. Eng’g Corp.*, 216 F.3d 1343, 1347 (Fed. Cir. 2000) (alterations in original) (quoting *Scripps Clinic v. Genentech, Inc.*, 927 F.2d 1565, 1580 (Fed. Cir. 1991)). “[O]nly those [claim] terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy.” *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999). The words of a claim “are generally given their ordinary and customary meaning,” which is “the meaning that the term would have to a person of ordinary skill in art” as of the patent’s filing date. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (*en banc*) (quoting *Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)).

2. Literal Infringement and the Doctrine of Equivalents

A complainant must prove either literal infringement or infringement under the doctrine of equivalents. Literal infringement requires the patentee to prove that the accused device meets each and every limitation of the asserted claim(s). *Frank’s Casing Crew & Rental Tools, Inc. v.*

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Weatherford Int'l, Inc., 389 F.3d 1370, 1378 (Fed. Cir. 2004). “If even one limitation is missing or not met as claimed, there is no literal infringement.” *Elkay Mfg. Co. v. EBCO Mfg. Co.*, 192 F.3d 973, 980 (Fed. Cir. 1999). Literal infringement is a question of fact. *Finisar Corp. v. DirecTV Grp., Inc.*, 523 F.3d 1323, 1332 (Fed. Cir. 2008). Under the Doctrine of Equivalents, “a product or process that does not literally infringe upon the express terms of a patent claim may nonetheless be found to infringe if there is ‘equivalence’ between the elements of the accused product or process and the claimed elements of the patented invention.” *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 21 (1997).

3. Direct and Indirect Infringement

Pursuant to section 271(a) of the Patent Act, direct infringement of a patent consists of making, using, offering to sell, or selling the patented invention without consent of the patent owner. 35 U.S.C. § 271(a).

In addition to direct infringement, a respondent may be liable for indirect infringement, including induced infringement and contributory infringement. Induced infringement is defined in section 271(b) of the Patent Act: “Whoever actively induces infringement of a patent shall be liable as an infringer.” 35 U.S.C. § 271(b). See *DSU Med. Corp. v. JMS Co., Ltd.*, 471 F.3d 1293, 1305 (Fed. Cir. 2006) (*en banc*) (“To establish liability under section 271(b), a patent holder must prove that once the defendants knew of the patent, they actively and knowingly aided and abett[ed] another’s direct infringement.”) (citations omitted). “The mere knowledge of possible infringement by others does not amount to inducement; specific intent and action to induce infringement must be proven.” *Id.* (citations omitted). The Supreme Court has held that induced infringement “requires knowledge that the induced acts constitute patent infringement.” *Global-Tech Appliances, Inc. v. SEB S.A.*, 563 U.S. 754, 766 (2011). In *Suprema, Inc. v. Int’l*

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Trade Comm'n, the Federal Circuit upheld the Commission's interpretation of the section 337 language "articles that infringe" in the context of induced infringement, holding that the statute "covers goods that were used by an importer to directly infringe post-importation as a result of the seller's inducement." 796 F.3d 1338, 1352-53 (Fed. Cir. 2015).

Contributory infringement is defined in section 271(c) of the Patent Act: "Whoever offers to sell . . . or imports into the United States a component of a patented machine, . . . or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer." 35 U.S.C. § 271(c). The intent requirement for contributory infringement is that respondent knows "that the combination for which [the] component was especially designed was both patented and infringing." *Global-Tech*, 563 U.S. at 763. A violation of section 337 based on contributory infringement requires that "the accused infringer imported, sold for importation, or sold after importation within the United States, the accused components that contributed to another's direct infringement." *Spansion, Inc. v. Int'l Trade Comm'n*, 629 F.3d 1331, 1353 (Fed. Cir. 2010).

B. Accused Products

There is no dispute that the Accused Products have been imported. *See* JX-0266C (importation stipulation). Traeger's infringement allegations rely on Dr. Shoemake's analysis of a representative grill, the GMG Daniel Boone Prime grill. CX-0838C (Shoemake DWS) at Q/A 90-92.

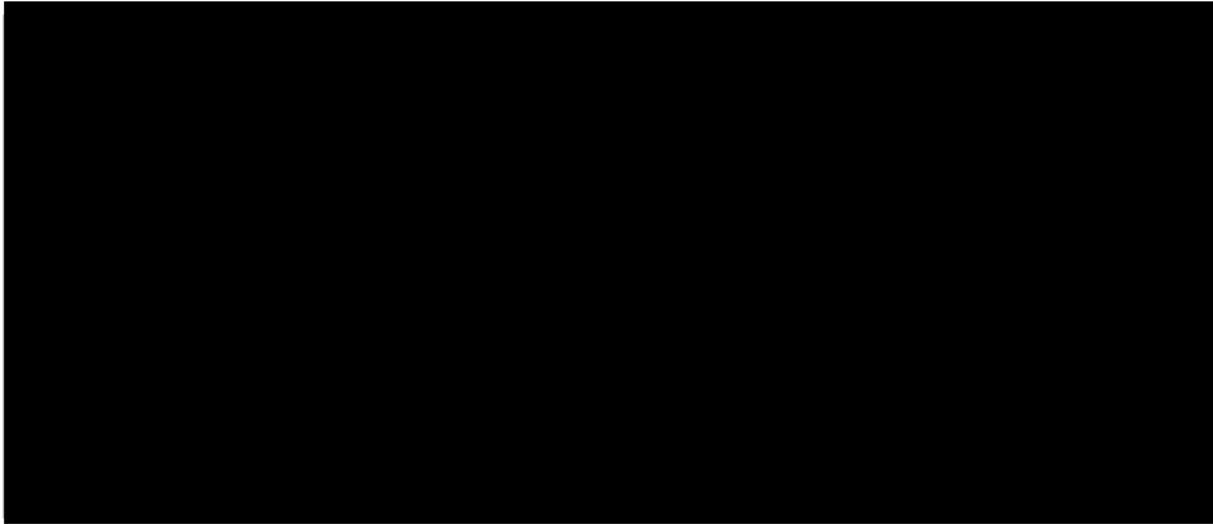
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CDX-0002C.0018. GMG does not dispute that the Daniel Boone Prime grill is representative of the Accused Products for the purposes of infringement, and GMG’s non-infringement arguments are directed to the operation of the “GMG System” for all Accused Products. RIB at 14-33; RRB at 5-24.

The “GMG System” includes (1) a mobile GMG App (Android or iOS), (2) an API Server (sometimes also referred to as the “Parse server”), (3) a database, (4) a Grill Server, and (5) a GMG Grill having a grill controller. RIB at 8-9. The Accused Products connect to the GMG System through a “provisioning” process that initiates connections between each part of the GMG System. RIB at 8-9; *see* CX-0838C (Shoemaker DWS) at Q/A 112.

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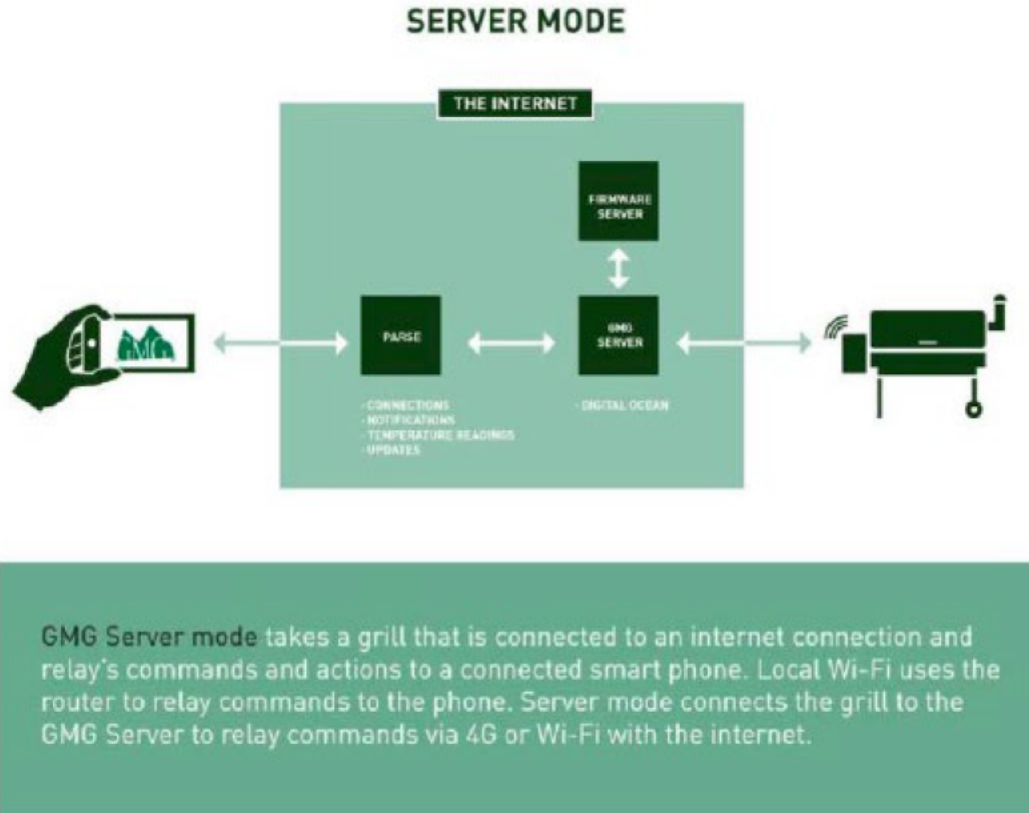


CX-0466C.0002. After the connections are initiated, communications can be sent between the GMG App on a mobile device and the GMG Grill *via* the API Server and Grill Server. RIB at 9-11; *see* CX-0838C (Shoemaker DWS) at Q/A 112.



CX-0466C.0004. This mode of operation is referenced in GMG’s documents as the “Server Mode.”

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CX-0283C.0003.

Traeger's expert, Dr. Shoemake, analyzed certain source code for the GMG App and the GMG Server (including the API Server and Grill Server). *See, e.g.*, CX-0838C (Shoemake DWS) at Q/A 96 (describing API Server and Grill Server source code), Q/A 102 (describing GMG App source code).

C. Direct Infringement

Traeger's infringement allegations are based on the use of the GMG System. CIB at 14-44.³ Independent claims 1 and 12 are directed to a "cloud computing platform," and independent

³ Traeger identifies videos on GMG's YouTube channel as evidence that GMG itself has used the GMG System. CIB at 15-17 (CX-0577, CX-0578, CX-0579, CX-0580, CX-0581, CX-0582, CX-0583, CX-0584, CX-0585, CX-0586, CX-0587, CX-0588, CX-0589, CX-0590, and CX-0591). GMG does not dispute that it has used the GMG System, and the undersigned thus finds

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claim 16 is a method claim. The asserted claims are addressed on a limitation-by-limitation basis below:

1. Claim 1

Claim 1 recites a “cloud computing platform” meeting several limitations, which are discussed in more detail below.

a. Preamble

The preamble of claim 1 requires that the “cloud communication platform” is “for communicating with and controlling operation of an electronically-controlled appliance comprising an outdoor barbecue grill or outdoor barbecue smoker” and that the platform include “at least one hardware processor.” ’720 patent at 15:36-41. The parties agreed to construe the term “cloud computing platform” to mean a platform for enabling on-demand network access to a shared pool of configurable computing resources. Order No. 22 at 27.

Traeger identifies the GMG Server (comprising [REDACTED] [REDACTED]) as the claimed “cloud communication platform.” CIB at 18-19. Dr. Shoemake submits that the GMG Server is “on-demand” because [REDACTED] [REDACTED] CX-0838C (Shoemake DWS) at Q/A 94. Traeger submits that the GMG Server [REDACTED] [REDACTED] [REDACTED] consistent with the specification of the ’720 patent, which describes network servers, storage, applications, and services. *See* ’720 patent at 6:5-8 (“cloud

that GMG’s use of the GMG System after importation can be the basis for a finding of violation based on direct infringement. *See Certain Blood Cholesterol Testing Strips and Associated Systems Containing the Same*, Inv. 337-TA-1116, Comm’n Op. at 24-33 (May 1, 2020) (finding a violation based on a respondent’s importation and direct infringement of a method claim).

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computing’ is defined as a model for enabling on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services).”). Traeger submits that these resources are shared among multiple users of GMG grills. CIB at 19 (citing CX-0838C (Shoemake DWS) at Q/A 110; Tr. (Williams) at 304-13-305:5; Tr. (Scott) at 277:5-14). Traeger thus contends that the GMG Server infringes the “cloud computing platform” limitation of the ’720 patent. CIB at 18-19; CRB at 13-15.

GMG argues that the GMG Server is not a “cloud computing platform” because it is not a “service” that allows customers to access configurable computing resources. RIB at 30-32. Mr. Williams submits that Traeger’s allegations with respect to the “cloud computing platform” are overbroad and would cover a broad range of computing systems that he would not consider “cloud” platforms. RX-0334C (Williams RWS) at Q/A 55-57. He suggests that a “cloud computing platform” must “provide a service that allows a customer to spin up new virtual machines” and “allow distinct customers to freely configure and launch new computing resources,” and “[i]t is not enough for parties to be sharing a network or storage.” *Id.* at Q/A 58.

Based on the evidence identified by Traeger and in consideration of the testimony of Dr. Shoemake and Mr. Williams, the undersigned finds that the GMG Server is a “cloud computing platform” according to the agreed construction for this term. The evidence shows that the GMG Server [REDACTED]

[REDACTED]. There is no dispute that the GMG Server provides for communicating with and controlling the operation of outdoor barbecue grills or that the GMG Server has at least one hardware processor. *See* CX-0838C (Shoemake DWS) at Q/A 96; RIB at 30-32 (not disputing these limitations). Accordingly, the GMG System infringes the preamble limitations of claim 1 of the ’720 patent.

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- b. **“a receiver configured to receive inputs from one or more computing systems including at least a first input indicating that an electronically-controlled appliance is in network communication with the cloud computing platform”**

The first limitation of claim 1 requires “a receiver configured to receive inputs from one or more computing systems including at least a first input indicating that an electronically-controlled appliance is in network communication with the cloud computing platform, the electronically-controlled appliance comprising an outdoor barbecue grill or outdoor barbecue smoker.” ’720 patent at 15:42-48. The “first input” described in this limitation was construed to mean an input indicating that the appliance is communicating over a network. Order No. 22 at 28-30.

The functionality that Traeger identifies as infringing the “receiver” limitation is the “Server Mode” connection between the GMG Grill and the GMG Server, [REDACTED]. [REDACTED]. CIB at 20-23. Dr. Shoemake explains that this process [REDACTED]. [REDACTED]. CX-0838C (Shoemake DWS) at Q/A 79-83. The user can then select the “Server Mode” to connect the GMG Grill to the GMG Server. *Id.* at Q/A 85.

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CDX-0002C.011. In the “Server Mode,” the user can monitor the status of the GMG Grill and send commands to the GMG Grill *via* the GMG Server. CX-0838C (Shoemake DWS) at Q/A 86-89.

Traeger submits that the hardware controller of a GMG Grill qualifies as “one or more computing systems” that sends inputs to the GMG Server. CIB at 23-28.⁴ [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]. *Id.* at Q/A 100. According to the source code, [REDACTED]

[REDACTED] *Id.* [REDACTED]

⁴ Traeger also asserts an alternative theory of infringement based on a “first input” sent from the GMG App, which is addressed below in the context of claim 12. *See infra.*, section IV.D.3.b.

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[REDACTED]

[REDACTED] *Id.* at Q/A 103. The GMG Server [REDACTED]

[REDACTED] *Id.* GMG submits that the [REDACTED]

[REDACTED]

[REDACTED] are each a “first input indicating that an electronically-controlled appliance is in network communication with the cloud computing platform,” infringing this limitation. CIB at 25-27.

GMG argues that the grill’s hardware controller cannot be one of the “one or more computing systems” referenced in the claim. RIB at 17-18. GMG submits that a separate limitation of claim 1 refers to a “hardware controller on the electronically-controlled appliance,” and argues that the “hardware controller” must be a separate and distinct component from the “one or more computing systems.” *Id.* at 12-13. GMG submits that the specification only refers to a mobile device and cloud computing platform as “computing systems,” while separately referencing the “hardware controller.” *Id.* at 13-14 (citing ’720 patent at 6:64-7:5). GMG also cites the post-grant review of the ’720 patent, where the PTAB found that Lee did not teach this limitation where the identified “input” came from Lee’s “home gateway” rather than its “terminal apparatus.” *Id.* at 14 (citing RX-0259.2399). In addition, GMG argues that the [REDACTED]

[REDACTED]

Id. at 17-18; *see* RX-0334C (Williams RWS) at Q/A 22.

In reply, Traeger argues that the specification and prosecution history are consistent with a broad reading “one or more computing systems” that can include the hardware controller on the GMG Grill. CRB at 2-4. Traeger submits that there is an explicit indication of connectivity status sent from the GMG Grill, [REDACTED]

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[REDACTED]
[REDACTED] CRB at 4-5 (citing CX-0838C (Shoemake WS) at Q/A 100). Traeger further submits that [REDACTED]

[REDACTED] *Id.* at 4 (citing CX-0838C (Shoemake WS) at Q/A 103).

GMG argues in reply that allowing the hardware controller to be one of the “one or more computing devices” would be inconsistent with the claim language and specification. RRB at 7-8. GMG submits that under Traeger’s interpretation, the claim would be invalid in view of Lee. *Id.* at 8-9. GMG further argues that sending an input from the grill indicating that the grill is in network communication would be nonsensical, because such an input could only be sent after the grill is already in network communication. *Id.* at 9-10.

In consideration of the parties’ arguments, the undersigned finds that the term “one or more computing systems” in claim 1 is broad enough to include the hardware controller of a GMG Grill. The specification of the ’720 patent broadly describes “various types of computing systems.” ’720 patent at 4:46-47. “Computing systems may, for example, be mobile phones, electronic appliances, laptop computers, tablet computers, wearable devices, desktop computers, mainframes, and the like.” *Id.* at 4:48-51. The specification provides an explicit definition of “computing system,” to include “any device, system, or combination thereof that includes at least one processor, and a physical and tangible computer-readable memory capable of having thereon computer-executable instructions that are executable by the processor.” *Id.* at 4:51-56. When describing the hardware controller of a grill, the specification refers to communication between the hardware controller and “other computing systems.” *Id.* at 6:67-7:4. Based on these

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disclosures in the specification, the undersigned finds that the term “computing system” in the ’720 patent is broad enough to include grill hardware controllers.

GMG argues that the structure of the claim language requires that the “one or more computing systems” be separate from the “hardware controller,” but the Federal Circuit cases cited in GMG’s briefs are not applicable to the present claim language. In *Becton, Dickinson & Co. v. Tyco Healthcare Grp., LP*, the Federal Circuit required distinct structures “[w]here a claim lists elements separately.” 616 F.3d 1249, 1254 (Fed. Cir. 2010). But the separately listed elements in the ’720 patent are “a receiver,” “a notification generator,” and “a transmitter.” ’720 patent at 15:35-16:2. The “one or more computing systems” and “hardware controller” are elements of the claim that are defined by their function, and this claim language is more similar to the patents at issue in Federal Circuit cases allowing overlapping structures to infringe separate limitations. *See, e.g., Linear Tech. Corp. v. ITC*, 566 F.3d 1049, 1055 (Fed. Cir. 2009) (affirming Commission’s finding that claimed “second circuit” and “third circuit” do not require separate and distinct circuits); *Powell v. Home Depot U.S.A., Inc.*, 663 F.3d 1221, 1231-32 (Fed. Cir. 2011) (separately claimed “cutting box” and “dust collection structure” need not be separate components for purposes of infringement analysis). Consistent with this Federal Circuit precedent, the undersigned finds that the open-ended term “one or more computing systems” can include the “hardware controller” referenced in another limitation of claim 1.

The record on post-grant review also does not support GMG’s narrow construction of “one or more computing systems.” Although the PTAB held that metadata generated by the home appliance in *Lee* could not be the claimed “first input,” this finding was based on GMG’s identification of the “computing system” as the terminal apparatus in *Lee*. PGR2019-0024 Decision at 31-32, RX-0259.4421-22. The PTAB never considered an argument that *Lee*’s home

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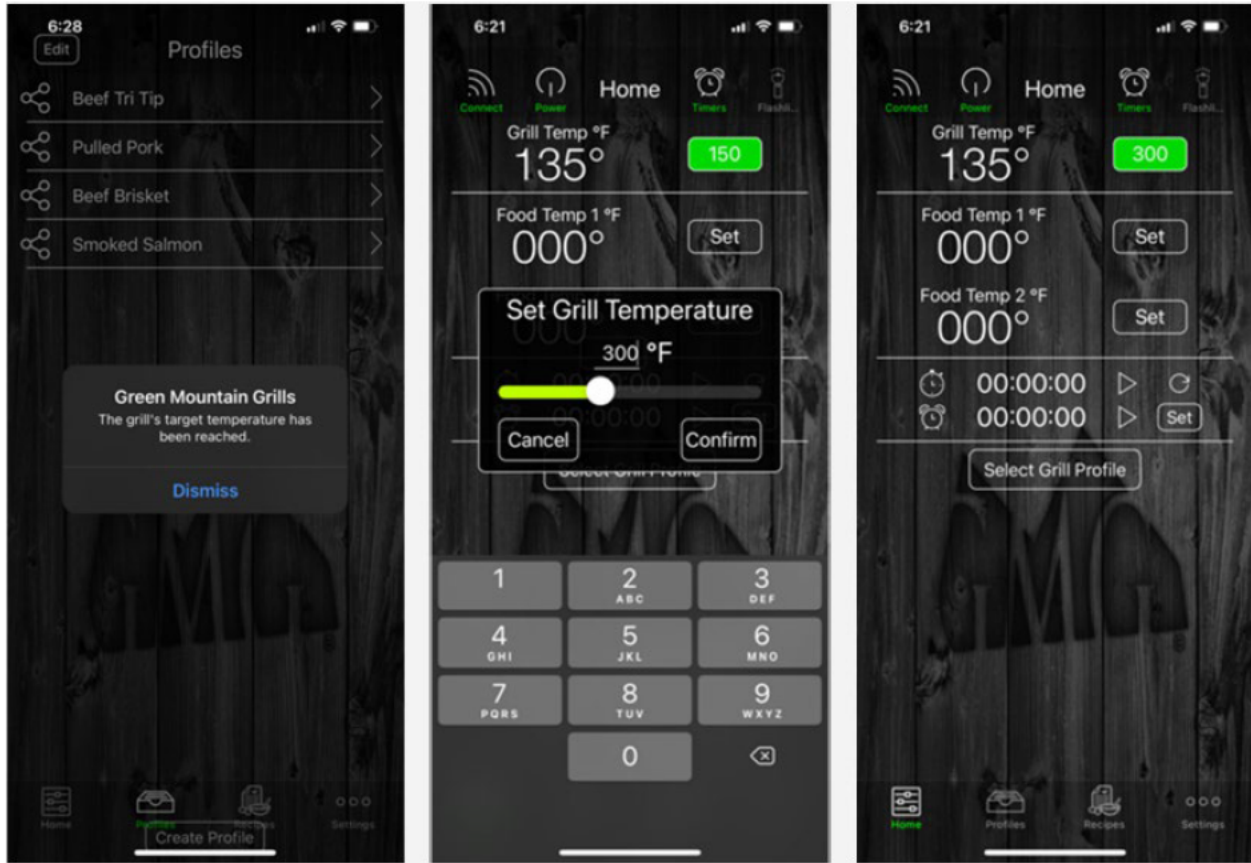
appliance or a hardware controller therein could be one of the “one or more computing systems.” See RX-0259.3256, Petitioner’s Reply to Patent Owner’s Response at 11 n.4 (Jan. 13, 2020) (GMG specifically disclaimed signals originating from Lee’s appliance as the “first input,” focusing its arguments on Lee’s signal 545 from the mobile device).

The record on post-grant review is further consistent with a broad reading of “one or more computing systems,” because there was no dispute that Lee’s terminal apparatus could be both a “computing system” and a “mobile device” in the ’720 patent. See RX-0259.0048-52, Petition for Post-Grant Review at 39-43 (Dec. 18, 2018) (identifying Lee’s terminal apparatus as the claimed “mobile device”). Claim 1 separately identifies “one or more computing systems,” a “mobile device,” and a “hardware controller,” and the claim language does not preclude the “mobile device” and “hardware controller” from being among the “one or more computing systems.” Consistent with the Federal Circuit’s holding in *CAE Screenplates, Inc. v. Heinrich Fiedler GmbH & Co.*, each of these different terms has a different meaning, with the “mobile device” and “hardware controller” part of the broader category of “computing systems.” See 224 F.3d 1308, 1317 (Fed. Cir. 2000) (finding that claim language describing a “bottom plane” referred to a specific part of the claimed “bottom”). Including hardware controllers within the category of “computing systems” is thus consistent with the claim language, specification, and prosecution history, and supported by Federal Circuit precedent.

Following this interpretation of the “one or more computing systems” limitation, the undersigned finds a preponderance of the evidence showing that the GMG Grill’s hardware controller sends an input to the GMG Server indicating that the appliance is communicating over a network. [REDACTED]

[REDACTED]

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CDX-0002C.021. [REDACTED]

[REDACTED] CX-0838C (Shoemake DWS) at Q/A 112.

Traeger submits that this functionality of the GMG System infringes the “notification generator” limitation. CIB at 32-33. GMG does not dispute infringement of this limitation separately from the “transmitter” limitation, as discussed below.

Based on the evidence presented by Dr. Shoemake, the undersigned finds that the GMG System thus infringes the “notification generator” limitation of claim 1.

- d. **“a transmitter configured to send” a “generated notification indicating that the cloud computing platform is communicably connected to the electronically-controlled appliance”**

The third limitation of claim 1 requires “a transmitter configured to send at least one generated notification to at least one of the software applications selected from the one or more

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software applications, the generated notification indicating that the cloud computing platform is communicably connected to the electronically-controlled appliance.” ’720 patent at 15:55-60.

The claim language “notification indicating that the cloud computing platform is communicably connected” was construed to mean a notification indicating that the grill is connected for communication. Order No. 22 at 30-32.

[REDACTED]
[REDACTED]. CX-0838C (Shoemake DWS) at Q/A 114. He explains that the

[REDACTED]
[REDACTED]

[REDACTED]. *Id.* Based on testimony at the hearing, Traeger submits that [REDACTED] CIB at 36-37 (citing

Tr. (Williams) at 348. The GMG App also [REDACTED]
[REDACTED] *Id.* at 37 n.8 (citing Tr. (Williams) at 347 [REDACTED]

[REDACTED]
[REDACTED]). Users can press a “Refresh” button in the GMG

App to display the most recent date and time that the GMG Grill checked in with the GMG Server. Tr. (Williams) at 349; *see* CX-0355 (GMG Manual) at 114 (“Tap the Refresh button to display the last date and time the grill connected to the server.”). Traeger thus argues that in the normal operation of the GMG System, the connectivity status displayed in the GMG App [REDACTED]
[REDACTED] CIB at 36-37.

GMG argues that [REDACTED]
[REDACTED]

[REDACTED] RIB at 25-27. Mr. Williams submits that [REDACTED]

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[REDACTED]
[REDACTED] RX-0334C (Williams RWS) at Q/A 32. With respect to the source code that checks whether the GMG Grill has been disconnected, Mr. Williams notes that [REDACTED]

[REDACTED] *Id.* at Q/A 36. Mr. Williams [REDACTED]
[REDACTED] *Id.*
at Q/A 37-39. GMG contends that the GMG System operates in a way that is similar to the Lee prior art addressed in post-grant review, where information regarding the connectivity status of an appliance was stored on a server and only sent to the mobile device upon request. RIB at 27-28; RX-0334C (Williams RWS) at Q/A 40. Separately, GMG argues that Traeger has failed to carry its burden to prove infringement of claim 1, because the connectivity information that Dr. Shoemake identifies for the “communicably connected” limitation is not one of the alerts he identified for the “notification generator” limitation. RIB at 28-29.

Traeger responds to GMG’s arguments by citing the *Markman* order, where GMG had proposed a construction that required connectivity information “at the exact moment of the input,” but this limitation was rejected. CRB at 10-11 (citing Order No. 22 at 11-15, 30-32). Traeger argues that [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED] *Id.* at 11-12 (citing Tr. (Scott) at 275-76; Tr. (Williams) at 348). Traeger distinguishes the Lee prior art because in Lee, there was no explicit notification regarding connectivity, and there was no specified amount of time for refreshing the status of the appliance, unlike [REDACTED] *Id.* at

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12. Traeger concedes that Dr. Shoemake did not explicitly identify the connection status as a notification in his analysis of the “notification generator” limitation but argues that Dr. Shoemake’s analysis is sufficient to show that the connection status of the GMG Grill [REDACTED] [REDACTED] meeting the limitations of both the “notification generator” and “transmitter” limitations. *Id.*

GMG’s reply brief cites arguments regarding the Lee prior art that were addressed in the post-grant review for the ’833 patent, comparing the state information stored in Lee’s server to the connectivity information in the GMG Server. RRB at 16-17. GMG submits that the information stored on the GMG Server is “stale” when sent to the GMG App and never indicates that the GMG Grill “is communicably connected.” *Id.* at 17-18. GMG characterizes the GMG System and the Lee prior art as “pull” systems that rely on the GMG App to request previous connectivity information, arguing that the claims require a “push” system that sends current connectivity information at the time it is generated. RRB at 20-21.

In consideration of the parties’ arguments, the undersigned finds that the “transmitter” limitation is infringed by the GMG System. [REDACTED] [REDACTED] are notifications indicating that the GMG Grill “is communicably connected.” These regular updates indicate the current connectivity status of the grill, and delays on the order of a few seconds do not affect the infringement analysis. GMG’s proposed construction requiring the notification to reflect “the exact moment of the input” was rejected in the *Markman* order. *See* Order No. 22 at 11-15, 30-32. GMG’s arguments regarding the Lee prior art rely on the post-grant review for the ’833 patent, which

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does not limit the scope of the claims in the '720 patent.⁵ The undersigned also finds that Dr. Shoemake's analysis is sufficient to show that [REDACTED]

[REDACTED]

Accordingly, the undersigned finds that the GMG System infringes the "transmitter" limitation of claim 1.

e. "receiving a second input . . . indicating that one or more specified functions are to be performed"

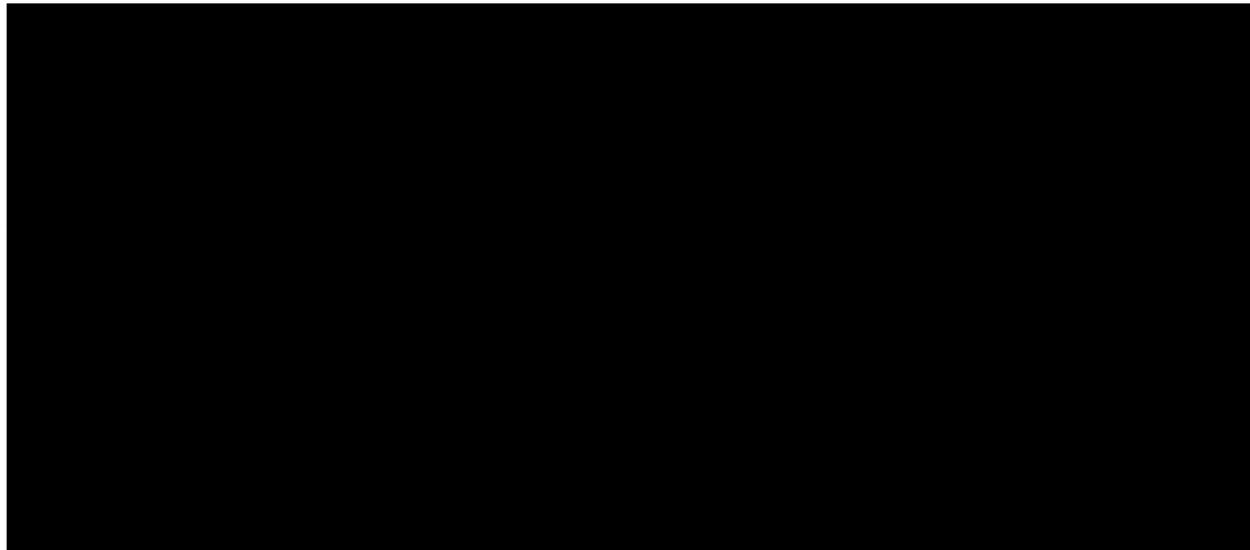
The fourth limitation of claim 1 requires "the receiver receiving a second input from the at least one software application indicating that one or more specified functions are to be performed on the electronically-controlled appliance." '720 patent at 15:61-64.

Dr. Shoemake identifies [REDACTED]

[REDACTED] CX-0838C (Shoemake DWS) at Q/A 116. He explains that [REDACTED]

[REDACTED]. *Id.*

⁵ As discussed *supra*, the PTAB distinguished Lee from claim 1 of the '720 patent based on the "first input" in the "receiver" limitation. *See* PGR2019-00024 Decision at 25-33.



CX-0466C.0003. [REDACTED]
[REDACTED]. CX-
0838C (Shoemake DWS) at Q/A 116. [REDACTED]

[REDACTED] *Id.* Traeger submits that this evidence shows that the GMG System infringes the “receiver receiving a second input” limitation. CIB at 37-38. GMG does not dispute infringement of this limitation. *Id.*

Based on the evidence presented by Dr. Shoemake, the undersigned finds that the GMG System infringes the “receiver receiving a second input” limitation of claim 1.

f. “the transmitter sending one or more instructions”

The final limitation of claim 1 requires “the transmitter sending one or more instructions to the electronically-controlled appliance to perform the one or more specified functions, the

⁶ [REDACTED]

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functions being interpreted and carried out by a hardware controller on the electronically-controlled appliance.” ’720 patent at 15:65-16:2.

Dr. Shoemake explains that [REDACTED]

[REDACTED] CX-0838C (Shoemake DWS) at Q/A 116. [REDACTED]

[REDACTED]. *Id.* [REDACTED]

[REDACTED] *Id.* at Q/A 118. [REDACTED]

[REDACTED] *Id.* Traeger relies on Dr. Shoemake’s

analysis to show infringement of this limitation. CIB at 38-40.

GMG argues that “the transmitter” identified for this limitation is not the same “transmitter” in the GMG System that Traeger identified for infringement of the “transmitter configured to send at least one generated notification” limitation. RIB at 29. Mr. Williams explains that [REDACTED]

[REDACTED]. RX-0334C

(Williams RWS) at Q/A 44.

In reply, Traeger argues that the claim language does not require a single unitary transmitter. CRB at 13. Traeger further submits that [REDACTED]

[REDACTED] *Id.*

Both Traeger and GMG cite *Convolve, Inc. v. Compaq Comput. Corp.*, where the Federal Circuit interpreted claim language referring to “a processor” and “the processor.” 812 F.3d 1313, 1321 (Fed. Cir. 2016). The court noted that “an indefinite article ‘a’ or ‘an’ in patent parlance carries the meaning of ‘one or more’ in open-ended claims containing the transitional

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phrase ‘comprising.’” *Id.* However, where a claim limitation used the definite article “the” to identify “the processor,” referring back to “a processor” in the preamble, the court required “the same processor to perform all of the recited steps.” *Id.* In accordance with this precedent, the undersigned agrees with GMG that “the transmitter” in the final limitation of claim 1 of the ’720 patent must be the same “transmitter” identified earlier in the claim. Requiring the same hardware transmitter to meet both limitations is also consistent with the specification of the ’720 patent. *See* ’720 patent at 7:23-26 (“The cloud computing platform 101 has hardware elements including . . . a transmitter 107 . . .”), 12:8:11 (“After this notification 112 is generated, the transmitter 107 of the cloud computing platform 101 transmits the generated notification to the software application 114 (530).”), 12:24-27 (“The transmitter 107 then transmits control instructions 119 to the electronically-controlled appliance 120 to perform the specified functions 122 (550).”), Fig. 5.

Based on the testimony of Dr. Shoemake, the undersigned finds that the GMG System has a “transmitter” that infringes these limitations. GMG argues that [REDACTED] [REDACTED] and Dr. Shoemake explains that the [REDACTED] CX-0838C (Shoemake DWS) at Q/A 118. The claim does not require that the same software service generate both the notifications sent to the software application and the instructions sent to the hardware controller but only that the same “transmitter” sends these signals. In the GMG System, [REDACTED] [REDACTED]. Accordingly, the undersigned finds that both “transmitter” limitations of claim 1 are infringed.

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For the reasons discussed above, the undersigned thus finds that claim 1 of the '720 patent is infringed by the GMG System.

2. Claim 2

Claim 2 depends from claim 1, further requiring that “the cloud computing platform communicates directly with the electronically-controlled appliance via an access point within range of the electronically-controlled appliance.” '720 patent at 16:3-6.

Dr. Shoemake identifies evidence that the GMG Grills are “designed to communicate via a Wi-Fi access point to obtain connectivity to the Internet thereby facilitating communication with the GMG cloud computing platform.” CX-0838C (Shoemake DWS) at Q/A 120. In particular, Dr. Shoemake identifies a manual showing that GMG Grills connect to a Wi-Fi access point and tutorial videos showing the connection process. CX-0335 (GMG “Smart Grilling” page); *see, e.g.*, CX-0336 (Server Mode tutorial video). Dr. Shoemake cites testimony describing the Wi-Fi controller in GMG Grills and explains that in his own testing, he connected a GMG Grill to a Wi-Fi access point. CX-0838C (Shoemake DWS) at Q/A 120. GMG does not dispute infringement of the limitations recited in claim 2.

Based on the evidence identified by Traeger, the undersigned thus finds that the GMG System infringes claim 2 of the '720 patent.

3. Claim 12

Claim 12 is a separate independent claim with limitations that are similar to those recited in claim 1, with narrower language in the “receiver” limitation, a “wherein” clause requiring a previous direct connection, and a “control signal generator” *in lieu* of a “notification generator.” '720 patent at 16:54-17:20. The parties' disputes with respect to infringement are the same for claim 1 and claim 12. *See* CIB at 40-42; RIB at 29-30.

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a. Preamble

The preamble of claim 12 is identical to the preamble of claim 1. '720 patent at 16:54-59. As discussed above in the context of claim 1, the undersigned finds that the GMG Server is a “cloud computing platform,” and the GMG System infringes the limitations of the preamble.

b. **“a receiver at the cloud computing platform configured to receive inputs from one or more mobile devices including at least a first input indicating that the electronically-controlled appliance is in network communication with the cloud computing platform”**

The “receiver” limitation of claim 12 is similar to the corresponding limitation of claim 1, except that the receiver must be “configured to receive inputs from one or more mobile devices.” '720 patent at 16:60-64. In the context of claim 1, this “receiver” limitation was found to be infringed by an input from the hardware controller of the GMG Grill, but the GMG Grill is not a “mobile device” as recited claim 12. Traeger thus relies on an alternative theory of infringement for claim 12 based on inputs from the GMG App running on mobile devices. CIB at 41 (referencing CIB at 29-32); CX-0838C (Shoemake DWS) at Q/A 123 (referencing his infringement opinions with respect to claim 1).

Dr. Shoemake identifies the [REDACTED].

CX-0838C (Shoemake DWS) at Q/A 96. [REDACTED]

[REDACTED]

[REDACTED] When the user decides to initiate GMG’s “Server Mode,” the [REDACTED]

[REDACTED]. *Id.* at Q/A

102. [REDACTED]

[REDACTED] *Id.*; see Tr. (Shoemake) at 240-41.

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Traeger argues that [REDACTED]

[REDACTED] CIB at 29-31.

GMG argues that [REDACTED]

[REDACTED]. RIB at 18-21. Mr. Williams

describes [REDACTED]

[REDACTED]. RX-0334C (Williams RWS) at Q/A 24. GMG argues that [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] RIB at 18-20. GMG argues that [REDACTED]

[REDACTED] is similar to the request signals in Lee that were

considered by the PTAB in post-grant review. *Id.* at 20-21.

In reply, Traeger identifies [REDACTED]

[REDACTED] CRB at 8 (citing Tr.

(Shoemake) at 240-41. Traeger further submits that in normal operation, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] CRB at 8-9.

GMG cites Dr. Shoemake's admission that [REDACTED]

[REDACTED]

[REDACTED] RRB at 13 (citing Tr. (Shoemake) at 208-210). [REDACTED]

[REDACTED]

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[REDACTED]

[REDACTED] RRB at 13-14. David Scott, a Fyresite manager who worked on the software for the GMG App, confirmed that [REDACTED]

[REDACTED] Tr. (Scott) at 282-83.

Traeger further argues that this limitation is infringed under the doctrine of equivalents. CIB at 31-32. Dr. Shoemake explains that [REDACTED]

[REDACTED]

[REDACTED]. CX-0838C (Shoemake DWS) at Q/A 106. The way that the GMG App performs this function is [REDACTED]

[REDACTED]. *Id.* Dr. Shoemake submits that [REDACTED]

[REDACTED]

[REDACTED]. *Id.*

GMG argues that there is no infringement under the doctrine of equivalents. RIB at 21-25. GMG submits that prosecution history estoppel precludes Traeger from alleging that the message sent from the GMG App infringes the “in network communication” limitation, because a similar message was distinguished in post-grant review. *Id.* at 21-23. GMG further argues that there are significant differences between the transmissions from the GMG App and the claim language. *Id.* at 23-25.

Based on this record, the undersigned agrees with GMG that the “receiver” limitation of claim 12 is not infringed literally or under the doctrine of equivalents. The undisputed facts show that [REDACTED]

[REDACTED] Accordingly, it is impossible for [REDACTED]

[REDACTED]

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[REDACTED] The source code analyzed by Dr. Shoemake confirms that [REDACTED]

[REDACTED] Accordingly, the “in network communication” limitation is not literally infringed by any input from the GMG App.

With respect to the doctrine of equivalents, the undersigned finds that there are substantial differences between the “in network communication” limitation and the alleged indication from the GMG App. The evidence of record fails to satisfy a function-way-result test, because the way the GMG System operates is substantially different from the structure of this claim limitation. The function of indicating that the GMG Grill is in network connection with the GMG Server is accomplished through communications between the GMG Grill and the GMG Server, not through any input from the GMG App. [REDACTED]

[REDACTED]. The undersigned thus finds that Traeger’s function-way-result allegations fail to make a *prima facie* case for infringement under the doctrine of equivalents.

Moreover, the undersigned agrees with GMG that Traeger’s infringement arguments are inconsistent with the record on post-grant review, where the PTAB rejected arguments that a request sent from a mobile device to obtain data regarding a specific appliance would be an indication that the appliance is in network communication. PGR2019-00024 Decision at 30, RX-0259.4361. The PTAB credited Traeger’s expert, who criticized the Lee prior art because “Lee simply assumes that the appliances can communicate within the home network,” and “Lee

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simply assumes *a priori* the connectivity.” *Id.* Traeger is making an analogous argument with respect to the GMG App, assuming that the GMG Grill will complete its connection when the GMG App sends a “connection message” to the GMG Server. Although the record on post-grant review may not rise to the level of prosecution history estoppel, Traeger’s inconsistent arguments undermine Dr. Shoemake’s contention that there is an insubstantial difference between indicating that a grill is in network communication and assuming that a connection has been established.

Accordingly, the undersigned finds that the GMG System does not infringe the “receiver” limitation of claim 12 of the ’720 patent.

c. “wherein the one or more mobile devices have previously established an initial, direct connection”

The second limitation of claim 12 requires that “the one or more mobile devices have previously established an initial, direct connection with the electronically-controlled appliance, and wherein the one or more mobile devices and the electronically-controlled appliance maintain independent connections to the cloud computing platform over the internet.” ’720 patent at 16:65-17:3. The “maintain independent connections” limitation was construed to mean that the one or more mobile devices and the electronically-controlled appliance each communicate directly to the cloud computing platform. Order No. 22 at 32-34.

With respect to this limitation, Dr. Shoemake explains that [REDACTED]

[REDACTED] CX-0838C (Shoemake DWS) at Q/A 124. He performed his own testing where he [REDACTED]

[REDACTED] *Id.* at Q/A 125. He further [REDACTED]

125-26. GMG does not dispute infringement of this limitation. *See* CIB at 41.

Based on the evidence identified by Dr. Shoemake, the undersigned finds that the “wherein” limitation of claim 12 is infringed by the GMG System.

d. “receiving a second input . . . indicating that one or more end user specified functions are to be performed”

The “second input” limitation of claim 12 is similar to the corresponding limitation of claim 1. ’720 patent at 17:4-8. As discussed above in the context of claim 1, there is no dispute that the GMG System infringes the “second input” limitation.

e. “a control signal generator configured to generate control signals that are to be sent to the electronically-controlled appliance”

The fourth limitation of claim 12 of the ’720 patent requires “a control signal generator configured to generate control signals that are to be sent to the electronically-controlled appliance, the control signals being configured to control functions of the electronically-controlled appliance according to the received second input.” ’720 patent at 17:9-13. With respect to this limitation, Traeger relies on Dr. Shoemake’s analysis of the GMG System for the “second input” and “sending one or more instructions” limitations of claim 1. CIB at 42; *see* CX-0838C (Shoemake DWS) at Q/A 128. In particular,

[REDACTED]. CX-0838C

(Shoemake DWS) at Q/A 118. GMG does not dispute infringement of this limitation. *See* CIB at 42. Based on the evidence identified by Dr. Shoemake, the undersigned finds that the GMG System infringes the “control signal generator” limitation of claim 12 of the ’720 patent.

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f. “a transmitter configured to transmit the generated control signals directly to the electronically-controlled appliance”

The final limitation of claim 12 of the '720 patent requires “a transmitter configured to transmit the generated control signals directly to the electronically-controlled appliance over the internet for performance of the one or more specified functions received from the one or more mobile devices, the functions being interpreted and carried out by a hardware controller on the electronically-controlled appliance.” '720 patent at 17:14-20. With respect to this limitation, Traeger relies on Dr. Shoemake’s analysis of the GMG System for the “sending one or more instructions” limitation of claim 1. CIB at 42; CX-0838C (Shoemake DWS) at Q/A 129. GMG does not dispute infringement of this limitation. *See* CIB at 42. For the same reasons discussed above in the context of claim 1, the undersigned finds that the “transmitter” limitation of claim 12 is infringed by the GMG System.

As discussed above, however, the GMG System does not infringe claim 12 because the “receiver” limitation is not infringed with respect to “a first input” from “one or more mobile devices.”

4. Claim 16

Claim 16 is a method claim with limitations that are similar to those recited in claim 1, except that claim 16 requires that the “first input” be received from “one or more mobile devices,” which is similar to claim 12. '720 patent at 17:55-18:21. The parties’ disputes with respect to infringement of claim 16 are similar to those discussed above in the context of claims 1 and 12. *See* CIB at 42-44; RIB at 30-32.

a. Preamble

The preamble of claim 16 describes “[a] method for remotely controlling an electronically-controlled appliance comprising an outdoor barbecue grill or outdoor barbecue

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smoker via one or more mobile devices and an internet-connected network server, the electronically-controlled appliance having at least one hardware controller.” ’720 patent at 17:55-60. There is no dispute with respect to infringement of the preamble of claim 16, and Traeger relies on Dr. Shoemake’s analysis with respect to the preamble, “receiver” and “notification generator” limitations of claim 1. CIB at 42; *see* CX-0838C (Shoemake DWS) at Q/A 132. Based on the evidence identified by Dr. Shoemake, the undersigned finds that the operation of the GMG System infringes the preamble limitations of claim 16.

b. “receiving . . . a first input from one or more mobile devices”

The first limitation of claim 16 requires “receiving at a network server of a cloud computing platform a first input from one or more mobile devices, the first input indicating that at least a first electronically-controlled appliance is in network communication with a cloud computing platform, the first electronically-controlled appliance comprising an outdoor barbecue grille or outdoor barbecue smoker.” ’720 patent at 16:61-67. This claim language is similar to the “receiver” limitation of claim 12 and requires that the “first input” be received from “one or more mobile devices.” Traeger relies on the same infringement theory that is discussed above in the context of claim 12. *See* CIB at 43 (referencing CIB at 29-32); CX-0838C (Shoemake DWS) at Q/A 133 (referencing his infringement opinions with respect to claim 1). GMG disputes infringement of this limitation for the same reasons discussed above in the context of claim 12. RIB at 30 (referencing RIB at 18-25).

For the same reasons discussed above in the context of claim 12, the undersigned finds that the “receiving” limitation of claim 16 is not infringed by the operation of the GMG System, because there is no “first input from one or more mobile devices” indicating that the GMG Grill “is in network communication” with the GMG Server.

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c. “generating a notification”

The second limitation of claim 16 requires “generating a notification at the network server that is to be sent to a software application being executed at a mobile device, the software application being configured to remotely control one or more functions of the electronically-controlled appliance over the internet.” ’720 patent at 18:1-5. With respect to this limitation, Traeger relies on the same evidence discussed above in the context of the “notification generator” limitation of claim 1. CIB at 43 (referencing CIB at 32-33); *see* CX-0838C (Shoemake DWS) at Q/A 134 (referencing Q/A 112). There is no dispute with respect to infringement of this limitation. *See* CIB at 43.

For the same reasons discussed above in the context of the “notification generator” limitation of claim 1, the undersigned finds that the “generating a notification” limitation of claim 16 is infringed by the operation of the GMG System.

d. “transmitting the generated notification”

The third limitation of claim 16 requires “transmitting the generated notification from the network server to the software application at the mobile device, the generated notification indicating that the cloud computing platform is communicably connected to the electronically-controlled appliance.” ’720 patent at 18:6-10. With respect to this limitation, Traeger relies on the same evidence discussed above in the context of the “transmitter” limitation of claim 1. CIB at 43 (referencing CIB at 33-37); *see* CX-0838C (Shoemake DWS) at Q/A 135 (referencing Q/A 114). GMG raises the same non-infringement arguments that are addressed above in the context of the “transmitter” limitation of claim 1. RIB at 30 (referencing RIB at 25-29).

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For the same reasons discussed above in the context of the “transmitter” limitation of claim 1, the undersigned finds that the “transmitting” limitation of claim 16 is infringed by the operation of the GMG System.

e. “receiving . . . a second input from the software application”

The fourth limitation of claim 16 requires “receiving at the network server a second input from the software application, the second input indicating that one or more specified functions initiated by the user on the mobile device are to be performed on the electronically-controlled appliance.” ’720 patent at 18:11-15. With respect to this limitation, Traeger relies on the same evidence discussed above in the context of the “receiving a second input” limitation of claim 1. CIB at 43 (referencing CIB at 37-38); *see* CX-0838C (Shoemake DWS) at Q/A 136 (referencing Q/A 116). There is no dispute with respect to infringement of this limitation. *See* CIB at 43.

For the same reasons discussed above in the context of the “receiving a second input” limitation of claim 1, the undersigned finds that the “receiving . . . a second input” limitation of claim 16 is infringed by the operation of the GMG System.

f. “transmitting . . . one or more instructions”

The final limitation of claim 16 requires “transmitting from the network server to the electronically-controlled appliance over the internet one or more instructions to perform the one or more specified functions, the functions being interpreted and carried out by a hardware controller on the electronically-controlled appliance.” ’720 patent at 18:16-21. With respect to this limitation, Traeger relies on the same evidence discussed above in the context of the “transmitter sending one or more instructions” limitation of claim 1. CIB at 44 (referencing CIB at 38-39); *see* CX-0838C (Shoemake DWS) at Q/A 137 (referencing Q/A 118). There is no dispute with respect to infringement of this limitation. *See* CIB at 44.

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For the same reasons discussed above in the context of the “transmitter sending one or more instructions” limitation of claim 1, the undersigned finds that the “transmitting . . . one or more instructions” limitation of claim 16 is infringed by the operation of the GMG System.

As discussed above, however, the operation of the GMG System does not infringe claim 16 because the “receiving” limitation is not infringed with respect to “a first input from one or more mobile devices.”

5. Claim 21

Claim 21 depends from claim 16, further requiring that “the network server is connected to the one or more mobile devices and the electronically-controlled appliance over the internet via separate internet connections.” ’720 patent at 18:46-49. With respect to this limitation, Traeger relies on the same evidence discussed above in the context of the “wherein” limitation of claim 12. CIB at 44 (referencing CIB at 41); *see* CX-0838C (Shoemaker DWS) at Q/A 139 (referencing Q/A 124-26). There is no dispute with respect to infringement of this limitation. *See* CIB at 44.

For the same reasons discussed above in the context of the “maintain independent connections” limitation of claim 12, the undersigned finds that the limitations recited in claim 21 are infringed by the operation of the GMG System. Claim 21 is not infringed, however, because claim 16 is not infringed.

6. Claim 22

Claim 22 depends from claim 16, further requiring that “the network server is connected to the one or more mobile devices and the electronically-controlled appliance over the internet.” ’720 patent at 18:50-52. With respect to this limitation, Traeger relies on the same evidence discussed above in the context of the preamble of claim 1, the “wherein” clause of claim 12, and

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the “transmitter” limitation of claim 12. CIB at 44 (referencing CIB at 18-19, 41); *see* CX-0838C (Shoemake DWS) at Q/A 141 (referencing Q/A 94, 124-26). There is no dispute with respect to infringement of this limitation. *See* CIB at 44.

For the same reasons discussed above in the context of the preamble limitation of claim 1 and the “wherein” limitation of claim 12, the undersigned finds that the limitations recited in claim 22 are infringed by the operation of the GMG System. Claim 22 is not infringed, however, because claim 16 is not infringed.

D. Indirect Infringement

In addition to direct infringement, Traeger contends that GMG induces infringement and contributes to infringement of the asserted claims of the ’720 patent by its customers through the importation and sale of the Accused Products. CIB at 14-18.

With respect to inducement, Traeger submits that GMG had knowledge of the ’720 patent at least by the time that it filed its petition for post-grant review on December 18, 2018. *See GMG Products LLC v. Traeger Pellet Grills LLC*, PTAB Case No. PGR2019-00024, Petition (Dec. 18, 2018). Traeger identifies user manuals for the GMG grills that include instructions for using GMG’s “Server Mode.” CX-0355 at 112-115; CX-0130 at 34-35. Traeger’s marketing director, Nishan Pilibosian, also described a YouTube channel where GMG distributes videos showing users how to use the “Server Mode.” CX-0846C (Pilibosian Dep. Tr.) at 100-101; *see, e.g.*, CX-0577, CX-0578, CX-0579, CX-0580, CX-0581, CX-0582, CX-0583, CX-0584, CX-0585, CX-0586, CX-0587, CX-0588, CX-0589, CX-0590, and CX-0591. Mr. Pilibosian also described GMG statistics showing over 9 million hours grilled in “Server Mode” and over 3,000 daily active users on the GMG System since January 2017. CX-0846C (Pilibosian Dep. Tr.) at 87-89. Traeger submits that the server statistics show that GMG has induced its customers to use

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the GMG System. CIB at 15-17. Moreover, Traeger argues that the user manuals and videos are evidence of GMG's specific intent to encourage the use of the Accused Products in the GMG System. *Id.*

Traeger further alleges that the importation and sale of the Accused Products contributes to the infringement of the asserted claims of the '720 patent by GMG's customers because the GMG grills are components of the GMG System that were especially made and/or adapted for use in the "Server Mode" that is accused of infringement. *Id.* at 17-18.

GMG does not dispute Traeger's allegations with respect to indirect infringement. *See* CRB at 4.

Based on the evidence identified by Traeger, the undersigned finds that GMG has induced its customers to use the Accused Products in the GMG System. *See Certain Road Construction Machines and Components Thereof*, Inv. No. 337-TA-1088, Comm'n Op. at 29 (June 10, 2020) (finding induced infringement based on marketing and instructional materials provided to customers). In addition, the undersigned finds that GMG has satisfied the elements of contributory infringement with respect to its customers' use of the Accused Products in the GMG System. *See Certain Mounting Apparatuses for Holding Portable Electronic Devices and Components Thereof*, Inv. No. 337-TA-1086, Remand ID at 6-7 (Apr. 16, 2019) (finding contributory infringement based on respondents' sale of components specifically designed to be used with claimed method), *not reviewed by* Comm'n Notice (May 10, 2019).

Accordingly, the undersigned finds that GMG has both directly and indirectly infringed claims 1 and 2 of the '720 patent through the sale, importation, and use of the Accused Products.

E. Alleged Non-Infringing Designs

GMG has identified two alternative designs for the deployment of infrastructure for the GMG System. RIB at 32-33. The first redesign would [REDACTED]

[REDACTED] RX-0277C. [REDACTED] RIB at 32.

GMG's second redesign would [REDACTED] *Id.* at 33.

[REDACTED] *Id.* GMG argues that [REDACTED]

[REDACTED] *Id.*

Traeger argues that the first redesign would still infringe the “cloud computing platform” limitation, because [REDACTED]

[REDACTED] CIB at 44-46. Traeger further argues that [REDACTED]

[REDACTED] *Id.* at 45-46. With respect to the second redesign, Traeger argues that [REDACTED]

[REDACTED] is not sufficiently fixed and was not disclosed during discovery. *Id.* at 46-47.

In reply, GMG argues that the first redesign was clearly disclosed during discovery in a design document, RX-0277C. CRB at 22-24. [REDACTED]

[REDACTED] and Traeger had an opportunity to seek discovery on this issue. *Id.* at 23-24.

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As an initial matter, the undersigned must first determine whether the GMG’s redesigns can be adjudicated in this proceeding. The Commission favors “adjudicating redesigns to prevent subsequent and potentially burdensome proceedings that could have been resolved in the first instance in the original Commission investigation.” *Certain Human Milk Oligosaccharides*, Inv. No. 337-TA-1120, Comm’n Op. at 18, 2020 WL 3073788, at *11 (Jun. 8, 2020). The Commission considers the following factors to determine whether a redesigned product should be adjudicated: (1) whether the product is within the scope of the investigation; (2) whether it has been imported; (3) whether it is sufficiently fixed in design; and (4) whether it has been sufficiently disclosed by respondent during discovery. *Id.*

With respect to the first redesign, the undersigned finds that the four *Oligosaccharides* factors favor adjudication. With respect to the first two factors, the redesigned GMG Server would be within the scope of the investigation, and the same imported GMG Grills would connect to the redesigned GMG Server. The design document, RX-0277C, demonstrates that the [REDACTED] is sufficiently fixed in design, and GMG produced this document and referenced it in interrogatory responses before the close of fact discovery. *See* JX-0020C at 32. Accordingly, the first redesign that is reflected in RX-0277C is ripe for adjudication.

The undersigned finds that the first redesign does not affect the infringement analysis, however. The agreed construction for “cloud computing platform” is a platform for enabling on-demand network access to a shared pool of configurable computing resources. Order No. 22 at 27. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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[REDACTED].”⁷ Accordingly, for the same reasons discussed above with respect to the preamble of claim 1, the undersigned finds that the GMG System would infringe the “cloud computing platform” limitation of the ’720 patent even if the first redesign reflected in RX-0277C were implemented [REDACTED]

With respect to the second redesign, the undersigned agrees with Traeger that it was disclosed too late to be adjudicated in this investigation. GMG’s final contentions only identified the first redesign, without mentioning the second redesign. *See* JX-0020C at 32. There is no suggestion in GMG’s interrogatory response that the redesigned server [REDACTED]

[REDACTED] *Id.* The design document produced during discovery also describes [REDACTED] [REDACTED] RX-0277C; *see* Tr. (Shoemake) at 508:8-21 (testifying that the design document did not discuss [REDACTED] [REDACTED]). GMG’s present arguments regarding the second redesign are not consistent with the contentions disclosed during discovery. GMG does not [REDACTED]

[REDACTED]. *See* RIB at 33. The earliest reference to a proposal [REDACTED] was in an expert report, after fact discovery had closed. *See* Tr. (Shoemake) at 508:22-509:1

⁷ In addition, the redesign [REDACTED], [REDACTED] (identifying [REDACTED]) [REDACTED] *See* Tr. (Scott) at 276:4-19 [REDACTED]

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(testifying that Mr. Williams discussed [REDACTED]). This late disclosure was insufficient to provide Traeger with a fair opportunity to address the redesign.

In addition, the second redesign is not sufficiently fixed in design to be adjudicated.

Unlike the first redesign, GMG has produced no documents describing a plan to [REDACTED]

[REDACTED]. [REDACTED]

[REDACTED]

[REDACTED] The second redesign appears to consist solely of legal argument, without any evidence of tangible steps taken by GMG to design or implement [REDACTED]. Accordingly, the undersigned will not render a determination on infringement with respect to GMG's second redesign, in accordance with the *Oligosaccharides* factors.

V. DOMESTIC INDUSTRY

Traeger contends that the Traeger DI Grills meet the technical prong of the domestic industry requirement. CIB at 47-61. Summary determination was granted with respect to the economic prong of the domestic industry requirement, recognizing that Traeger's investments in research and development for the Traeger DI Grills represented significant employment of labor. Order No. 26 at 10-11.⁸

A. Legal Standards

In patent-based proceedings under section 337, a complainant must establish that an industry "relating to the articles protected by the patent . . . exists or is in the process of being established" in the United States. 19 U.S.C. § 1337(a)(2). Under Commission precedent, the

⁸ Order No. 26 also found significant investments with respect to the manufacture of wood pellets, but this finding was limited to the '833 patent. *See* Order No. 26 at 9-10.

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domestic industry requirement of section 337 consists of an “economic prong” and a “technical prong.” *See, e.g., Alloc, Inc. v. Intl Trade Comm’n*, 342 F.3d 1361, 1375 (Fed. Cir. 2003).

To meet the technical prong, the complainant must establish that it practices at least one claim of the asserted patent. *Certain Point of Sale Terminals and Components Thereof*, Inv. No. 337-TA-524, Order No. 40 at 17-18 (Apr. 11, 2005). “The test for satisfying the ‘technical prong’ of the industry requirement is essentially [the] same as that for infringement, *i.e.*, a comparison of domestic products to the asserted claims.” *Alloc*, 342 F.3d at 1375.

B. Domestic Industry Products

The economic prong finding in this investigation was based on investments related to Traeger’s cloud-connected wood-pellet grills (the “Traeger DI Grills”). *See* Order No. 26 at 1-2. As discussed above in the context of infringement, practicing the claims of the ’720 patent involves the use of grills within a cloud computing platform. The Traeger DI Grills work with a mobile application (the “Traeger App”) and a cloud-based server (the “Traeger Server”), and these three components comprise the “Traeger System.” CIB at 10. Dr. Shoemake explains how documentation provided by Traeger instructs users to connect the Traeger DI Grills to the Traeger App and the Traeger Server, and he followed these instructions to use the Traeger DI Grills in the Traeger System. CX-0838C (Shoemake DWS) at Q/A 200-219. The undersigned finds that this evidence is sufficient to show that the Traeger DI Grills can be “articles protected by the patent” to the extent that the Traeger System is shown to practice claims of the ’720 patent.

C. Technical Prong

Traeger contends that the Traeger System practices claims 1, 2, 16, 21, and 22 of the ’720 patent. CIB at 47-61.

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1. Claim 1

a. Preamble

With respect to the preamble of claim 1, Dr. Shoemake identifies the Traeger Server hosted by Amazon Web Services as the claimed “cloud computing platform.” CX-0838C (Shoemake DWS) at Q/A 226-233. He identifies a [REDACTED] in the Traeger Server for communicating with the Traeger App and the Traeger DI Grills. *Id.* at 226-232. Traeger submits that the Traeger System meets the limitations of the preamble, and there is no dispute from GMG. CIB at 47-48. Based on the evidence identified by Dr. Shoemake, the undersigned finds that the Traeger System practices the limitations of the preamble.

b. “a receiver configured to receive inputs from one or more computing systems including at least a first input indicating that an electronically-controlled appliance is in network communication with the cloud computing platform”

With respect to the “receiver” limitation of claim 1, Dr. Shoemake identifies a listener for TCP connections in the [REDACTED] of the Traeger Server. CX-0838C (Shoemake DWS) at Q/A 235. He also identifies a digital controller for the Traeger DI Grills that has an [REDACTED] that connects to the [REDACTED] of the Traeger Server. *Id.* Dr. Shoemake identifies the [REDACTED] sent from the Traeger DI Grill to the Traeger Server as a “first input” indicating that the grill “is in network communication” with the server. *Id.* These [REDACTED] for the [REDACTED] connection, which indicates that the grill is connected. *Id.* Dr. Shoemake also identifies a [REDACTED] after scanning a QR code on the Traeger DI Grill. *Id.* at Q/A 212-13. This [REDACTED], and Traeger

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identifies this [REDACTED] as an alternative “first input” meeting the claim limitations. CIB at 49-50; CX-0838C (Shoemake DWS) at Q/A 235.⁹

GMG disputes the “first input” limitation based on its reading of the claim language that precludes the grill hardware controller from being “one or more computing systems.” RIB at 35-36; RRB at 25.

For the same reasons discussed above in the context of infringement, the undersigned finds that the digital controller on the Traeger DI Grill can be one of the “one or more computing systems” that sends the “first input” to the “receiver” in the Traeger Server. Accordingly, the undersigned finds that Dr. Shoemake’s identification of inputs indicating a connection between the Traeger DI Grill and the Traeger Server is sufficient to show that the GMG System practices the “receiver” limitation of claim 1.

c. “a notification generator configured to generate notifications that are to be sent to one or more software applications”

With respect to the “notification generator” limitation of claim 1, Dr. Shoemake identifies multiple messages that can be generated by the [REDACTED] of the Traeger Server. CX-0838C (Shoemake DWS) at Q/A 238; CX-0332C. This includes a “status message” and “notifications such as grill temperature, ambient temperature and cook cycle status.” *Id.* Dr. Shoemake further identifies source code in the Traeger App for receiving these messages, including the status message that indicates whether the grill is offline. *Id.* Traeger submits that these messages are notifications that meet the limitations of the claim, and there is no dispute from GMG. CIB at 54-55.

⁹ Traeger offers an alternative theory with respect to this limitation based on [REDACTED]. CIB at 53-54. This alternative theory is addressed *infra* in the context of claim 16.

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Based on the evidence identified by Dr. Shoemake, the undersigned finds that the Traeger System practices the “notification generator” limitation of claim 1.

- d. “a transmitter configured to send” a “generated notification indicating that the cloud computing platform is communicably connected to the electronically-controlled appliance”**

With respect to the “transmitter” limitation of claim 1, Dr. Shoemake identifies push notifications sent by the [REDACTED] from the Traeger Server to the Traeger App. CX-0838C (Shoemake DWS) at Q/A 241. Dr. Shoemake explains that the information in these notifications is based on status messages that are sent from the Traeger DI Grills to the Traeger Server and [REDACTED]. *Id.* He specifically identifies a status message that is sent to the Traeger App when the Traeger DI Grill disconnects from the server. *Id.* In addition, Dr. Shoemake identifies [REDACTED] that indicates that there is no activity at the Traeger DI Grill while there is a connection to the Traeger Server. *Id.* at Q/A 242. He identifies source code in the Traeger App showing that [REDACTED]

[REDACTED]

[REDACTED] *Id.*

GMG argues that this limitation is not practiced because Traeger has failed to identify any status that explicitly indicates whether the Traeger DI Grill is in communication with the Traeger Server. RIB at 36. GMG further argues that there is a delay between the status information being received from the Traeger DI Grill and sent to the Traeger App. *Id.* at 36-37. Mr. Williams observed a delay of nearly three minutes after a Traeger DI Grill is disconnected before the Traeger App indicated an “Offline” status. RX-0334C (Williams RWS) at Q/A 104, 105.

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In reply, Traeger argues that there is no requirement that the notification be an express indication that the Traeger DI Grill is connected and submits that the Traeger App interprets many of the status messages to indicate a connection, displaying a green indication in the user interface. CRB at 17-19. With respect to the delayed notification in the case a disconnection, Traeger submits that the claim language is only concerned with notifications indicating a connection, and those status messages are regularly sent when the Traeger DI Grills are connected to the Traeger Server. *Id.* at 19.

In consideration of the parties' arguments, the undersigned agrees with Dr. Shoemake's analysis. The status messages sent from the Traeger Server to the Traeger App are notifications indicating that the Traeger DI Grill "is communicably connected," because the evidence shows that the Traeger App interprets these messages as indications of a connection, displaying a green notification in the user interface. The delays between status updates from the Traeger DI Grill are not material in the context of the claim language. GMG's proposed construction requiring an "express" notification that reflects "the exact moment of the input" was rejected in the *Markman* order. *See* Order No. 22 at 11-15, 30-32. GMG's arguments are not consistent with the claim language, as discussed above in the context of infringement. Accordingly, the undersigned finds that the Traeger System practices the "transmitter" limitation of claim 1.

e. "receiving a second input . . . indicating that one or more specified functions are to be performed"

With respect to the "second input" limitation, Dr. Shoemake identifies commands sent from the [REDACTED] of the Traeger App for setting the grill temperature, grill timer, alarms, and other functions. CX-0838C (Shoemake DWS) at Q/A 244. These commands are received by the [REDACTED] of the Traeger Server. *Id.* Traeger submits that these commands meet the claim limitations with respect to the second input, and there is no dispute from GMG. CIB at 57-

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58. Based on the evidence identified by Dr. Shoemake, the undersigned finds that the Traeger System practices the “receiving a second input” limitation of claim 1.

f. “the transmitter sending one or more instructions”

With respect to the “transmitter sending one or more instructions” limitation, Dr. Shoemake identifies source code regarding the [REDACTED] in the Traeger Server. CX-0838C (Shoemake DWS) at Q/A 246. He explains that the [REDACTED] on the Traeger DI Grill [REDACTED] which comprise commands that were sent from the Traeger App. *Id.* Traeger submits that the operation of this [REDACTED] practices the “transmitter sending one or more instructions” limitation, and there is no dispute from GMG. CIB at 58. Based on the evidence identified by Dr. Shoemake, the undersigned finds that the Traeger System practices the “transmitter sending one or more instructions” limitation of claim 1.

For the reasons discussed above, the undersigned thus finds that the Traeger System practices claim 1 of the '720 patent.

2. Claim 2

With respect to claim 2, Dr. Shoemake explains that the Traeger DI Grills connect to the Traeger Server through a Wi-Fi access point. CX-0838C (Shoemake DWS) at Q/A 248. Traeger submits that this connection through a Wi-Fi access point practices the limitations of claim 2, and there is no dispute from GMG. CIB at 59. Based on the evidence identified by Dr. Shoemake, the undersigned finds that the Traeger System practices claim 2 of the '720 patent.

3. Claim 16

a. Preamble

With respect to the preamble of claim 16, Dr. Shoemake refers to the same evidence that he identified for the preamble of claim 1. CX-0838C (Shoemake DWS) at Q/A 250. He further

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submits that the Traeger Server runs on Amazon Web Services (“AWS”), which provides network servers connected to the internet. *Id.* Traeger submits that using the Traeger System meets the preamble limitations of claim 16 for the same reasons that the Traeger System practices the preamble limitations of claim 1, and there is no dispute from GMG. CIB at 59.

Based on the evidence identified by Dr. Shoemake, the undersigned finds that using the Traeger System practices the preamble limitations of claim 16.

b. “receiving . . . a first input from one or more mobile devices”

With respect to the “first input” limitation of claim 16, Dr. Shoemake submits that the Traeger Server receives a “first input” from the Traeger App in the form of [REDACTED]. [REDACTED]. CX-0838C (Shoemake DWS) at Q/A 251, 236 (describing “alternate method” of practicing claim 1). As discussed above in the context of claim 1, [REDACTED]. [REDACTED]. *Id.* at Q/A 213. The Traeger App provides [REDACTED].” *Id.* at Q/A 235. The Traeger Grill [REDACTED], indicating that the Traeger Grill is in communication with the Traeger Server. *Id.* Traeger submits that the [REDACTED] is “a first input from one or mobile devices” because [REDACTED]. [REDACTED]. CIB at 53-54.

GMG argues that practicing this limitation through [REDACTED] [REDACTED] is “nonsensical and renders the claim language meaningless.” RIB at 35-36. Mr. Williams explains that when [REDACTED], there is no connection yet established between the Traeger Grill and the Traeger Server. RX-0334C (Williams RWS) at Q/A 101. GMG further argues that characterizing [REDACTED]

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[REDACTED] is “wholly inconsistent with the purpose” of the claim limitation. RRB at 25. GMG submits that the Traeger Grill is not merely used as a vehicle for communicating [REDACTED] to the Traeger Server— [REDACTED]

[REDACTED]

[REDACTED]. *Id.*

In consideration of the parties’ arguments, the undersigned finds that the “first input from one or more mobile devices” limitation is not practiced by the Traeger System. [REDACTED]

[REDACTED]

[REDACTED] only indicates that the Traeger Grill is “in network communication” with the Traeger Server in the last step. When this indication is received by the Traeger Server, it is not an “input from one or more mobile devices”—it is an input from the Traeger Grill. Traeger has thus failed to identify any input from the Traeger App that meets the “first input” limitation of claim 16.

c. **“generating a notification”**

With respect to the “generating a notification” limitation, Dr. Shoemake refers to the same evidence he identified for the “notification generator” limitation of claim 1. CX-0838C (Shoemake DWS) at Q/A 252. Traeger submits that this limitation is practiced for the same reasons discussed above in the context of claim 1, and there is no dispute from GMG. CIB at 60.

For the same reasons discussed above in the context of the “notification generator” limitation of claim 1, the undersigned finds that using the Traeger System practices the “generating a notification” limitation of claim 16.

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d. “transmitting the generated notification”

With respect to the “transmitting the generated notification” limitation, Dr. Shoemake refers to the same evidence he identified for the “transmitter” limitation of claim 1. CX-0838C (Shoemake DWS) at Q/A 253. Traeger submits that this limitation is practiced for the same reasons discussed above in the context of claim 1. CIB at 60. GMG disputes Traeger’s allegations with respect to this limitation for the same reasons discussed above in the context of claim 1. RIB at 38.

For the same reasons discussed above in the context of the “transmitter” limitation of claim 1, the undersigned finds that using the Traeger System practices the “transmitting the generated notification” limitation of claim 16.

e. “receiving . . . a second input from the software application”

With respect to the “second input” limitation, Dr. Shoemake refers to the same evidence he identified for the “second input” limitation of claim 1. CX-0838C (Shoemake DWS) at Q/A 254. Traeger submits that this limitation is practiced for the same reasons discussed above in the context of claim 1, and there is no dispute from GMG. CIB at 60.

For the same reasons discussed above in the context of the “second input” limitation of claim 1, the undersigned finds that using the Traeger System practices the “second input” limitation of claim 16.

f. “transmitting . . . one or more instructions”

With respect to the “transmitting . . . one or more instructions” limitation, Dr. Shoemake refers to the same evidence he identified for the “transmitter sending one or more instructions” limitation of claim 1. CX-0838C (Shoemake DWS) at Q/A 255. Traeger submits that this

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limitation is practiced for the same reasons discussed above in the context of claim 1, and there is no dispute from GMG. CIB at 60.

For the same reasons discussed above in the context of the “transmitter sending one or more instructions” limitation of claim 1, the undersigned finds that using the Traeger System practices the “transmitting . . . one or more instructions” limitation of claim 16.

As discussed above, however, using the Traeger System does not practice claim 16 because the “receiving” limitation is not practiced with respect to “a first input from one or more mobile devices.”

4. Claim 21

With respect to claim 21, Dr. Shoemake identifies separate IP addresses that are assigned to the Traeger App and the Traeger Grill with respect to the Traeger Server. CX-0838C (Shoemake DWS) at Q/A 257. Dr. Shoemake performed testing where the Traeger App was connected to the Traeger Server through a different Wi-Fi network from the Traeger Grill or using cellular data. *Id.* Traeger submits that the Traeger System practices the limitations recited in claim 21, and there is no dispute from GMG. CIB at 60.

Based on the evidence identified by Dr. Shoemake, the undersigned finds that the Traeger System can be used to practice the limitation recited in claim 21. The undersigned finds that using the Traeger System does not practice claim 21, however, because claim 16 is not practiced, as discussed above.

5. Claim 22

With respect to claim 22, Dr. Shoemake refers to the same evidence he identified for the preamble of claim 1. CX-0838C (Shoemake DWS) at Q/A 259. Traeger submits that this

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limitation is practiced for the same reasons discussed above in the context of claim 1, and there is no dispute from GMG. CIB at 61.

For the same reasons discussed above in the context of the preamble of claim 1, the undersigned finds that using the Traeger System practices the limitation recited in claim 22. The undersigned finds that using the Traeger System does not practice claim 22, however, because claim 16 is not practiced, as discussed above.

VI. INVALIDITY

GMG contends that the asserted claims of the '720 patent are invalid in view of certain prior art, relying on the opinions of David Williams. RIB at 38-56; RRB at 26-35; RX-0315C (Williams DWS) at Q/A 27-101. Traeger disputes GMG's invalidity contentions. CIB at 68-76; CRB at 22-30. Traeger further argues that GMG is estopped from challenging the invalidity of the '720 patent. CIB at 61-68; CRB at 19-22.

A. Legal Standards

It is the respondents' burden to prove invalidity, and the burden of proof never shifts to the patentee to prove validity. *Scanner Techs. Corp. v. ICOS Vision Sys. Corp. N.V.*, 528 F.3d 1365, 1380 (Fed. Cir. 2008). "Under the patent statutes, a patent enjoys a presumption of validity, *see* 35 U.S.C. § 282, which can be overcome only through facts supported by clear and convincing evidence" *SRAM Corp. v. AD-II Eng'g, Inc.*, 465 F.3d 1351, 1357 (Fed. Cir. 2006); *see also Microsoft Corp. v. i4i Ltd. P'ship*, 564 U.S. 91, 100-114 (2011) (upholding the "clear and convincing" standard for invalidity).

The clear and convincing evidence standard requires a level of proof beyond the preponderance of the evidence. Although not susceptible to precise definition, "clear and convincing" evidence has been described as evidence that produces in the mind of the trier of

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fact “an abiding conviction that the truth of a factual contention is ‘highly probable.’” *Price v. Symsek*, 988 F.2d 1187, 1191 (Fed. Cir. 1993) (quoting *Buildex, Inc. v. Kason Indus., Inc.*, 849 F.2d 1461, 1463 (Fed. Cir. 1988)).

1. Anticipation

Pursuant to 35 U.S.C. § 102(a), a patent claim is invalid as anticipated if:

- (1) the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention; or
- (2) the claimed invention was described in a patent issued under section 151, or in an application for patent published or deemed published under section 122(b), in which the patent or application, as the case may be, names another inventor and was effectively filed before the effective filing date of the claimed invention.

35 U.S.C. § 102(a). “A patent is invalid for anticipation if a single prior art reference discloses each and every limitation of the claimed invention. Moreover, a prior art reference may anticipate without disclosing a feature of the claimed invention if that missing characteristic is necessarily present, or inherent, in the single anticipating reference.” *Schering Corp. v. Geneva Pharm., Inc.*, 339 F.3d 1373, 1377 (Fed. Cir. 2003) (citations omitted).

2. Obviousness

Section 103 of the Patent Act states:

A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

35 U.S.C. § 103. “Obviousness is a question of law based on underlying questions of fact.” *Scanner Techs.*, 528 F.3d at 1379. The underlying factual determinations include: “(1) the scope

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and content of the prior art, (2) the level of ordinary skill in the art, (3) the differences between the claimed invention and the prior art, and (4) objective indicia of non-obviousness.” *Id.* (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966)). These factual determinations are often referred to as the “*Graham* factors.”

When relying on a combination of prior art references, the challenger must demonstrate that the combination references disclose all of the limitations of the claims. *Velandar v. Garner*, 348 F.3d 1359, 1363 (Fed. Cir. 2003) (explaining that a requirement for a finding of obviousness is that “all the elements of an invention are found in a combination of prior art references”); *Hearing Components, Inc. v. Shure Inc.*, 600 F.3d 1357, 1373-1374 (Fed. Cir. 2010), *abrogated on other grounds by Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898 (2014) (upholding finding of non-obviousness based on substantial evidence that the asserted combination of references failed to disclose a claim limitation);

An important inquiry for determining whether a claimed invention is obvious is finding whether there is a reason to combine the elements disclosed in the prior art. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418-21 (2007). In *KSR*, the Supreme Court rejected the Federal Circuit’s rigid application of a “teaching-suggestion-motivation” test. While the Court stated that “it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does,” it described a more flexible analysis:

Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue As our precedents make clear, however, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take

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account of the inferences and creative steps that a person of ordinary skill in the art would employ.

Id. at 418. Applying *KSR*, the Federal Circuit has held that, where a patent challenger contends that a patent is invalid for obviousness based on a combination of prior art references, “the burden falls on the patent challenger to show by clear and convincing evidence that a person of ordinary skill in the art would have had reason to attempt to make the composition or device . . . and would have had a reasonable expectation of success in doing so.” *PharmaStem Therapeutics, Inc. v. ViaCell, Inc.*, 491 F.3d 1342, 1360 (Fed. Cir. 2007).

B. MAK System

GMG contends that the asserted claims of the ’720 patent are anticipated and/or obvious in view of a wireless grill system developed by MAK Grills (the “MAK System”). RIB at 46-52. According to Bob Tucker, the co-owner of MAK Grills, the MAK System was in public use in 2012 and a MAK Grills Mobile product using the MAK System was sold by May 2013. RX-0332C (Tucker Dep. Tr.) at 10:13-11:19; JX-0255C. Gregory Amero, an engineer who worked on the MAK System, confirmed that the system was in use prior to October 2015. RX-0322C (Amero Dep. Tr.) at 45:21-46:11. There is no dispute that the MAK System is prior art to the ’720 patent.

Mr. Williams reviewed source code and documentation for the MAK System. RX-0315C (Williams DWS) at Q/A 30; RDX-0014. Ryan Comingdeer, an engineer who worked on the MAK System, confirmed that the source code was from December 2014. RX-0325C (Comingdeer Dep. Tr.) at 77:15-78:1. Mr. Comingdeer also identified a diagram of the architecture for the MAK System that he created in 2013. *Id.* at 19:1-32:4.



JX-0126C. In the MAK System, a grill controller (also called the “Pellet Boss”) communicates with a cloud-based Web service (“MAK server”) to transmit status updates and receive commands (e.g., setpoint temperature settings). RX-0315C (Williams DWS) at Q/A 32; RX-0325C (Comingdeer Dep. Tr.) at 19:1-32:4. A user operates a client device to access a webpage which loads a client-side JavaScript program (“MAK client” or “client app”) that allows the user to interact with the grill via the MAK server. RX-0315C (Williams DWS) at Q/A 33; RX-0325C (Comingdeer Dep. Tr.) at 32:17-36:12.

1. Claim 1

Mr. Williams identifies features of the MAK System that correspond to each limitation of claim 1. RX-0315C (Williams DWS) at Q/A 54-60. Dr. Shoemake offers a rebuttal to Mr. Williams’s opinions. CX-1005C (Shoemake RWS) at Q/A 31-40.

a. Preamble

With respect to the claim 1 preamble, Mr. Williams identifies the MAK server as the claimed cloud computing platform, which communicates and controls the operation of a MAK grill through a grill controller. RX-0315C (Williams DWS) at Q/A 54. GMG submits that MAK System discloses the limitations of the claim 1 preamble, and there is no dispute from Traeger. RIB at 46.

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Accordingly, the undersigned finds that the preamble limitations of claim 1 are disclosed by the MAK System.

- b. **“a receiver configured to receive inputs from one or more computing systems including at least a first input indicating that an electronically-controlled appliance is in network communication with the cloud computing platform”**

With respect to the “receiver” limitation of claim 1, Mr. Williams explains that [REDACTED] [REDACTED]. RX-0315C (Williams DWS) at Q/A 56. In his opinion, the MAK System does not meet the limitations of the “receiver” limitation. *Id.* at Q/A 55. GMG argues that the MAK System discloses this limitation to the same extent that it is disclosed in the Lee prior art reference and infringed by the GMG System. RIB at 46-47. GMG submits that [REDACTED] [REDACTED]. *Id.*

Traeger argues that GMG failed to disclose this contention in its pre-hearing brief and the argument has thus been waived pursuant to Ground Rule 8.2. CRB at 22-23. Traeger further contends that the [REDACTED] sent by the MAK grill controller “do not include any indication that the grill is communicating with the server over a network, but instead relate to messages about the functionality of the grill (*i.e.*, temperature).” *Id.* at 23.

The undersigned agrees with Traeger that GMG has waived any contention that a message from the MAK grill controller discloses the “receiver” limitation. Ground Rule 8.2 requires that “[t]he pre-hearing brief shall set forth a party’s contentions on each of the proposed issues,” and “[a]ny contentions not set forth in detail as required herein shall be deemed abandoned or withdrawn.” Order No. 2 at 18 (Dec. 29, 2020); *see Certain Footwear Products*, Inv. No. 337-TA-936, Initial Determination at 32 (Nov. 17, 2015) (finding arguments abandoned that were not properly raised in pre-hearing brief). GMG’s prehearing brief fails to identify any

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input from the MAK grill that corresponds to the “receiver” limitation of claim 1—the only contention disclosed by GMG is based on [REDACTED].

RPHB at 93.¹⁰ GMG’s pre-hearing brief contends generally that “this limitation would only be satisfied by the MAK System if it is also satisfied by Lee and GMG,” *Id.*, but there is no explanation identifying which aspects of the MAK System are similar to Lee and the GMG System with respect to this limitation. *Id.*¹¹

The undersigned finds thus that GMG’s post-hearing brief arguments based on a “first input” from the MAK grill controller have been waived. To the extent that GMG is still relying on its pre-hearing brief theory based on a “first input” from the MAK client, the undersigned finds that [REDACTED] fails to meet the limitations of claim 1. As explained by Dr. Shoemake, [REDACTED] [REDACTED]—it does not indicate that any connection has been made. CX-1005C (Shoemake RWS) at Q/A 33.

Accordingly, the undersigned finds that GMG has failed to show that the MAK System discloses the “receiver” limitation of claim 1.

c. “a notification generator configured to generate notifications that are to be sent to one or more software applications”

With respect to the “notification generator” limitation of claim 1, Mr. Williams identifies notifications sent from the MAK server to the MAK client, which include set point temperature, probe temperatures, connection status, and power status. RX-0315C (Williams DWS) at Q/A 57.

¹⁰ This contention appears in Mr. Williams’s demonstrative slides. RDX-0003C.0003-.0004.

¹¹ Mr. Williams’s testimony comparing the MAK System to Lee and the GMG System was excluded pursuant a motion *in limine*, because he did not disclose these opinions in his expert report. Order No. 32 at 2-3 (Sept. 7, 2021).

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GMG submits that the JavaScript code that is loaded onto a web browser on the MAK client is a “software application” in accordance with the claim language. RIB at 47-48.

Traeger argues that JavaScript code running on a web browser is not a “software application,” relying on the testimony of Dr. Shoemake. CRB at 23-24; CX-1005C (Shoemake RWS) at Q/A 35. Traeger also argues that GMG has failed to show that the MAK System software is “configured to control one or more functions” of the MAK grill. *Id.*; CX-1005C (Shoemake RWS) at Q/A 34. Traeger further argues that the MAK System has not been shown to work with a “mobile device.” *Id.*; CX-1005C (Shoemake RWS) at Q/A 36.

In reply, GMG argues that Traeger’s narrow reading of the term “software application” is inconsistent with the specification of the ’720 patent. RRB at 29 (citing ’720 patent at 10:12-16 (describing “software application” that “may be run on a desktop computing system or may be run through a web browser.”)). GMG identifies testimony from Mr. Comingdeer, explaining that the system could be used with mobile devices. RRB at 32; *see* RX-0325C (Comingdeer Dep. Tr.) at 31:14-16 (“The user, whatever, device they bring, whether it’s a mobile phone, iPad, or laptop, they go to the website.”), 76:7-17 (same). At the hearing, Dr. Shoemake admitted that Mr. Comingdeer’s deposition testimony explains how the MAK System communicates temperature commands from the MAK server to a MAK grill. Tr. (Shoemake) at 489-92; CX-0325C (Comingdeer Dep. Tr.) at 43-51.

In consideration of the parties’ arguments, the undersigned agrees with GMG’s interpretation of the term “software application” in the context of the ’720 patent. Based on the testimony of Mr. Comingdeer, the undersigned finds there is sufficient evidence in the record to show that the MAK System could be used with software applications on mobile devices.

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Accordingly, the undersigned finds that the MAK System discloses the “notification generator” limitation of claim 1.

- d. **“a transmitter configured to send” a “generated notification indicating that the cloud computing platform is communicably connected to the electronically-controlled appliance”**

With respect to the “transmitter” limitation of claim 1, Mr. Williams explains that the MAK client [REDACTED], RX-0315C (Williams DWS) at Q/A 58. He explains: [REDACTED]

[REDACTED]

[REDACTED] *Id.* GMG submits that these notifications meet the “transmitter” limitation of claim 1, and there is no dispute from Traeger. RIB at 48-49.

Based on the evidence identified by Mr. Williams, the undersigned finds that the MAK System discloses the “transmitter” limitation of claim 1.

- e. **“receiving a second input . . . indicating that one or more specified functions are to be performed”**

With respect to the “second input” limitation, Mr. Williams identifies the temperature input that is sent from the MAK client to the MAK server, which [REDACTED] [REDACTED]. RX-0315C (Williams DWS) at Q/A 59. GMG submits that this temperature setting meets the “second input” limitation of claim 1, and there is no dispute from Traeger. RIB at 49.

Based on the evidence identified by Mr. Williams, the undersigned finds that the MAK System discloses the “second input” limitation of claim 1.

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f. “the transmitter sending one or more instructions”

With respect to the “transmitter sending one or more instructions” limitation, Mr. Williams submits that the MAK grill retrieves the posted temperature, sending the instructions from the MAK server to the MAK grill. RX-0315C (Williams DWS) at Q/A 60. GMG submits that this temperature meets the “sending one or more instructions” limitation of claim 1. RIB at 49-50. GMG further cites testimony from the hearing where Dr. Shoemake reviewed the deposition testimony of engineers who worked on the MAK System, admitting that commands are sent to the MAK grill and carried out by a hardware controller on that grill. Tr. (Shoemake) at 492-95; CX-0325C (Comingdeer Dep. Tr.) at 43-51; CX-0322C (Amero Dep. Tr.) at 19-22. Traeger argues that GMG waived its contention regarding functions being carried out by the MAK grill, because this argument was not presented in GMG’s pre-hearing brief. CRB at 25.

In consideration of the parties’ arguments, the undersigned finds that the MAK System discloses the “sending one or more instructions” limitation of claim 1. With respect to the issue of waiver, the undersigned finds that GMG’s pre-hearing brief adequately described [REDACTED] [REDACTED] RPHB at 95. The cited testimony from the hearing is within the scope of this contention, and based on this evidence, the undersigned finds that the MAK System discloses the limitation requiring “the functions being interpreted and carried out by a hardware controller.”

For the reasons discussed above, however, the undersigned finds that GMG has not shown that the MAK System renders claim 1 invalid, because GMG has failed to show that the MAK System discloses the “receiver” limitation requiring a “first input.”

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2. Claim 2

With respect to claim 2, GMG submits that the MAK server communicates directly with the MAK grill via a WiFi access point. RIB at 50. There is no dispute with respect to the limitations of claim 2, but the undersigned finds that the MAK System does not render claim 2 invalid because the MAK System does not disclose all the limitations of claim 1, as discussed above.

3. Claim 12

Mr. Williams identifies features of the MAK System that correspond to each limitation of claim 12. RX-0315C (Williams DWS) at Q/A 62-68. Dr. Shoemake offers a rebuttal to Mr. Williams's opinions. CX-1005C (Shoemake RWS) at Q/A 42-55.

a. Preamble

The preamble of claim 12 is identical to the preamble of claim 1, and GMG relies on the same evidence with respect to claim 12 that was identified for claim 1. RIB at 50-51; RX-0315C (Williams DWS) at Q/A 62. For the same reasons discussed above with respect to claim 1, the undersigned finds that the MAK System discloses the limitations of the preamble of claim 12.

b. **“a receiver at the cloud computing platform configured to receive inputs from one or more mobile devices including at least a first input indicating that the electronically-controlled appliance is in network communication with the cloud computing platform”**

With respect to the “receiver” limitation of claim 12, GMG relies on its arguments with respect to the “receiver” limitation of claim 1. RIB at 50-51; RX-0315C (Williams DWS) at Q/A 63. Claim 12 requires a “first input” that is received “from one or more mobile devices,” so GMG's arguments regarding the MAK grill controller are inapplicable, even if they had not been

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waived. With respect to a “first input” from the MAK client, the undersigned finds that this limitation is not disclosed for the reasons discussed above in the context of claim 1.

c. “wherein the one or more mobile devices have previously established an initial, direct connection”

There is no dispute that the MAK System discloses the “independent connections” of the “wherein” clause of claim 12, but GMG concedes that the MAK System does not disclose the claimed “initial, direct connection.” RIB at 51. Dr. Shoemake explains that in the MAK System, the user can input Wi-Fi credentials directly into the MAK grill, which obviates the need for an initial connection to a mobile device. CX-1005C (Shoemake RWS) at Q/A 45.

Mr. Williams offers his opinion that one of ordinary skill in the art would have modified the MAK System to use a provisioning process disclosed in multiple prior art references, which would establish the claimed “initial, direct connection” between the mobile device and the grill. RX-0315C (Williams DWS) at Q/A 64. Mr. Williams identifies the provisioning processes described in the Fireboard System, Amer (JX-0260 at Fig. 8 and para. 90), and the Texas Instruments CC3200 Programmer’s Guide (JX-0192C at 17, 23-24). *Id.* He submits that one of ordinary skill in the art would have been motivated to implement a provisioning process to avoid the “cumbersome” process of entering WiFi credentials on the grill itself, relying on deposition testimony from one of the engineers who developed software for the Traeger System. *Id.* at Q/A 65.

Traeger argues that this limitation is not rendered obvious because the provisioning processes disclosed in the prior art were not readily compatible with the MAK System. CIB at 70-71; CRB at 25-26. Dr. Shoemake reviews each prior art provisioning process and identifies problems with the proposed combinations. CX-1005C (Shoemake RWS) at Q/A 46-50. With respect to the Fireboard System, Dr. Shoemake submits that the provisioning process relies on a

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Bluetooth connection to the grill, which is not disclosed in the MAK System. *Id.* at Q/A 46-47. With respect to Amer, Dr. Shoemake explains that the provisioning process relies on a “bridging” device that connects to the user’s mobile device using WiFi but connects to the target appliance using infrared (IR) communication. *Id.* at Q/A 48. He submits that Mr. Williams fails to account for the differences between the Amer device’s IR connection to an appliance and the MAK System, which has no such IR device. *Id.* With respect to the Texas Instruments CC3200, Dr. Shoemake submits that Mr. Williams’s opinions are too vague—it is unclear whether GMG is suggesting that the CC3200 chip be added to a MAK grill or whether there is some specific teaching in the manual that would lead one of ordinary skill in the art to implement a provisioning process in the MAK System. *Id.* at Q/A 50.

Based on the disclosures in the prior art and in consideration of the parties’ arguments, the undersigned finds that it would have been obvious to one of ordinary skill in the art to modify the MAK System to implement a provisioning process as disclosed in Amer.¹² The evidence shows that the Wi-Fi provisioning process described in Amer would have been compatible with the Wi-Fi connection in the MAK System—Dr. Shoemake’s opinion that Amer is limited to IR communication represents a view that was rejected by the PTAB during post-grant review. *See* PGR2019-0024 Decision at 49-50 (recognizing that Amer also discloses a control device that is “embedded in the appliance”).¹³ Mr. Williams offers a reason for modifying the MAK System to

¹² With respect to the Fireboard System and the CC3200 chip, GMG has failed to meet its burden to show that one of ordinary skill in the art would have modified the MAK System with teachings from this prior art, because Mr. Williams failed to identify any reason for adding additional hardware to the MAK System, such as a Bluetooth transceiver or a new processor.

¹³ The PTAB found that it would have been obvious to combine Amer with the Lee and Henderson prior art to invalidate claims 23-29 of the ’720 patent, which include similar

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use a provisioning process, recognizing that the manual input at the MAK grill is “very cumbersome” because of the “limited user interfaces.” RX-0315C (Williams DWS) at Q/A 65. This opinion is supported by testimony from an engineer at DornerWorks, who recognized that entering Wi-Fi credentials at a grill controller is not “an enjoyable process.” *Id.* The undersigned finds that this evidence is sufficient to show that manual input of Wi-Fi credentials at the MAK grill and the Wi-Fi provisioning process of Amer were two design choices that were known to those of ordinary skill in the art for connecting to a Wi-Fi network, and it would have been obvious to modify the MAK grill with the teaching in Amer. *See Uber Techs., Inc. v. X One, Inc.*, 957 F.3d 1334, 1341 (Fed. Cir. 2020) (finding obviousness where prior art references disclosed “two of a finite number of known, predictable solutions at the time of the invention,” and “a person of ordinary skill would have faced a simple design choice between the two, and therefore would have been motivated to combine the teachings.”).

Accordingly, the undersigned finds that the limitations of the “wherein” clause are obvious in view of the MAK System in combination with Amer.

d. “receiving a second input . . . indicating that one or more end user specified functions are to be performed”

With respect to the “second input” limitation of claim 12, Mr. Williams refers to the temperature setting that he identified with respect to the “second input” limitation of claim 1. RX-0315C (Williams DWS) at Q/A 66. GMG submits that this temperature setting meets the “second input” limitation of claim 12 for the same reasons that it meets the “second input”

limitations requiring an “initial direct connection” between the grill and the mobile device. *Id.* at 48-50.

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limitation of claim 1. RIB at 51. Traeger raises arguments similar to those addressed above in the context of the “notification generator” and “second input” limitations of claim 1. CRB at 26.

For the same reasons discussed above in the context of the “notification generator” and “second input” limitations of claim 1, the undersigned finds that the MAK System discloses the “second input” limitation of claim 12.

- e. **“a control signal generator configured to generate control signals that are to be sent to the electronically-controlled appliance”**

With respect to the “control signal generator” limitation of claim 12, Mr. Williams identifies the GrillServiceController module in the MAK server, which responds to HTTP requests from the grill by formatting grill control parameters stored in the database into an HTTP response. RX-0315C (Williams DWS) at Q/A 67. Relying on this analysis, GMG submits that this controller module meets the “control signal generator” limitation of claim 12. RIB at 51. Traeger raises arguments similar to those addressed above in the context of the “transmitter” limitation of claim 1. CRB at 26.

For the same reasons discussed above in the context of the “transmitter” limitation of claim 1, the undersigned finds that the MAK System discloses the “control signal generator” limitation of claim 12.

- f. **“a transmitter configured to transmit the generated control signals directly to the electronically-controlled appliance”**

With respect to the “transmitter” limitation of claim 12, Mr. Williams refers to the temperature setting that he identified with respect to the “transmitter” limitation of claim 1. RX-0315C (Williams DWS) at Q/A 68. GMG submits that this temperature setting meets the “transmitter” limitation of claim 12, and there is no dispute from Traeger. RIB at 51.

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Based on the evidence identified by Mr. Williams, the undersigned finds that the MAK System discloses the “transmitter” limitation of claim 12.

For the reasons discussed above, however, the undersigned finds that GMG has not shown that the MAK System renders claim 12 invalid, because GMG has failed to show that the MAK System discloses the “receiver” limitation requiring a “first input.”

4. Claim 16

With respect to claim 16, GMG relies on the same evidence identified above with respect to claim 1. RIB at 52. Traeger raises the same arguments that are discussed above with respect to claim 1. CIB at 71.

a. Preamble

With respect to the preamble of claim 16, GMG refers to the evidence identified by Mr. Williams with respect to the preamble of claim 1. RRB at 31. In particular, GMG points to Mr. Williams’s analysis of the MAK System diagram. RX-0315C (Williams DWS) at Q/A 54. Traeger argues that this evidence is insufficient to meet the preamble limitations requiring a “mobile device” and an “internet-connected network server.” CIB at 71; CX-1005C (Shoemaker RWS) at Q/A 56.

Based on the evidence identified by Mr. Williams, the undersigned finds that the MAK System discloses the limitations of the preamble of claim 16. Mr. Williams’s analysis with respect to the preamble of claim 1 and his general description of the MAK System are sufficient to show that these limitations are present. *See* RX-0315C (Williams DWS) at Q/A 31-33, 54.

b. “receiving . . . a first input from one or more mobile devices”

With respect to the “first input” limitation of claim 16, GMG and Traeger rely on their arguments with respect to the “receiver” limitation of claim 1. RIB at 52; CIB at 71. For the

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same reasons discussed above in the context of the “receiver” limitation of claim 1, the undersigned finds that the MAK System does not disclose the “receiving . . . a first input” limitation of claim 16.

c. “generating a notification”

With respect to the “generating a notification” limitation, GMG and Traeger rely on their arguments with respect to the “notification generator” limitation of claim 1. RIB at 52; CIB at 71. For the same reasons discussed above in the context of the “notification generator” limitation of claim 1, the undersigned finds that the MAK System discloses the “generating a notification” limitation of claim 16.

d. “transmitting the generated notification”

With respect to the “transmitting the generated notification” limitation, GMG and Traeger rely on their arguments with respect to the “transmitter” limitation of claim 1. RIB at 52; CIB at 71. For the same reasons discussed above in the context of the “transmitter” limitation of claim 1, the undersigned finds that the MAK System discloses the “transmitting the generated notification” limitation of claim 16.

e. “receiving . . . a second input from the software application”

With respect to the “second input” limitation, GMG and Traeger rely on their arguments with respect to the “second input” limitation of claim 1. RIB at 52; CIB at 71. For the same reasons discussed above in the context of the “second input” limitation of claim 1, the undersigned finds that the MAK System discloses the “second input” limitation of claim 16.

f. “transmitting . . . one or more instructions”

With respect to the “transmitting . . . one or more instructions” limitation, GMG and Traeger rely on their arguments with respect to the “transmitter sending one or more instructions” limitation of claim 1. RIB at 52; CIB at 71. For the same reasons discussed above

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in the context of the “transmitter sending one or more instructions” limitation of claim 1, the undersigned finds that the MAK System discloses the “transmitting . . . one or more instructions” limitation of claim 16.

For the reasons discussed above, however, the undersigned finds that GMG has not shown that the MAK System renders claim 16 invalid, because GMG has failed to show that the MAK System discloses the “receiving” limitation requiring a “first input.”

5. Claim 21

With respect to claim 21, GMG identifies the communications between the MAK client and the MAK server through HTTP requests. RIB at 52; RX-0315C (Williams DWS) at Q/A 75. Traeger disputes this limitation by arguing that the MAK System does not use a “mobile device.” CIB at 72.

As discussed above in the context of claim 1, the undersigned finds that there is clear evidence that the MAK System could be used with mobile devices. Accordingly, the undersigned finds that the limitations of claim 21 are disclosed by the MAK System. Claim 21 is not rendered invalid by the MAK System, however, because claim 16 has not be shown to be invalid.

6. Claim 22

With respect to claim 22, GMG submits that the MAK System is accessible over the internet, and there is no dispute from Traeger. RIB at 52; RX-0315C (Williams DWS) at Q/A 76.

Accordingly, the undersigned finds that the limitations of claim 22 are disclosed by the MAK System. Claim 22 is not rendered invalid by the MAK System, however, because claim 16 has not be shown to be invalid.

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C. Fireboard

GMG contends that the asserted claims of the '720 patent are anticipated and/or obvious in view of a cloud-connected thermometer system for monitoring cooking temperatures that was designed by Fireboard Labs (the "Fireboard system"). RIB at 40-41. According to Theodore Conrad, one of the cofounders of Fireboard Labs, the Fireboard system was in a public beta test in July 2015. RX-0326C (Conrad Dep. Tr.) at 16:22-19:1, 133:16-134:1. There is no dispute that the "beta" version of the Fireboard system is prior art to the '720 patent.

Mr. Williams explains that "[t]he Fireboard System [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] RX-0315C (Williams DWS) at Q/A 40. Mr. Williams submits that the Fireboard device "is coupled to a grill and is configured to take temperature measurements from the grill." *Id.* GMG concedes that the prior art Fireboard system did not have the capability to control the temperature of a grill but submits that one of ordinary skill in the art would have modified the Fireboard system to add temperature control. RIB at 52-53. Mr. Williams identifies prior art systems for remote control of grill temperature, including the MAK System, U.S. Patent No. 9,759,429 (JX-0261, "Tucker"), and U.S. Patent Pub. No. 2015/0025687 (JX-0259, "Henderson"). RX-0315C (Williams DWS) at Q/A 79. He further cites the testimony of Mr. Conrad, who explained that [REDACTED]

[REDACTED]

[REDACTED]. *Id.* at Q/A 80 (citing RX-0326C (Conrad Dep. Tr.) at 105-07.

Traeger argues that the evidence cited by GMG is insufficient to prove that one of ordinary skill in the art would have modified the Fireboard system to implement temperature

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control. CIB at 73. Dr. Shoemake criticizes Mr. Williams’s opinions for failing to explain how the Fireboard system would be modified in view of the MAK System, Tucker, or Henderson. CX-1005C (Shoemake RWS) at Q/A 107. Dr. Shoemake submits that it is unclear whether Mr. Williams is suggesting that the Fireboard system be combined with one of the prior art references or all three. *Id.* at Q/A 108. He characterizes Mr. Williams’s opinions as “using hindsight bias by identifying pieces of prior art with elements related to each claim limitation and suggesting that a person of ordinary skill in the art would have been motivated to combine them in exactly the way prescribed in the Traeger patents.” *Id.*

In consideration of the parties’ arguments, the undersigned finds that GMG has failed to clearly show that one of ordinary skill in the art would have modified the Fireboard system to implement temperature control. The primary evidence cited by GMG is the testimony of

Mr. Conrad and [REDACTED]

[REDACTED]. See RX-0326C (Conrad Dep. Tr.) at 106:10-107:11. [REDACTED]

[REDACTED] were publicly available, however, and the version of the Fireboard system that included temperature control was not released until 2017, after the filing of the parent application for the ’720 patent. *Id.* at 107:13-18. Fireboard’s business plans and inoperable source code were not available to the public, and accordingly, GMG has failed to identify clear and convincing evidence that one of ordinary skill in the art would have been motivated to modify the Fireboard system to implement temperature control.

GMG’s failure to carry its burden on obviousness precludes any invalidity finding with respect to the Fireboard system. Without any temperature control, the Fireboard system cannot meet the limitations of any claim of the ’720 patent. In particular, the preambles of claims 1, 12, and 16 all require “controlling” an electronically-controlled grill. Accordingly, the undersigned

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finds that GMG has failed to show that any claims of the '720 patent are invalid in view of the Fireboard system.

D. Estoppel

Traeger argues that GMG is estopped from challenging the invalidity of the '720 patent based on the MAK System and Fireboard prior art. CIB at 61-67.

1. Legal Standards

Section 325(e)(2) of the America Invents Act (“AIA”) provides that “[t]he petitioner in a post-grant review of a claim in a patent under this chapter that results in a final written decision . . . may not assert either in a civil action . . . or in a proceeding before the International Trade Commission under section 337 of the Tariff Act of 1930 that the claim is invalid on any ground that the petitioner raised or reasonably could have raised during that post-grant review.” 35 U.S.C. § 325(e)(2). *See Olaplex, Inc. v. L'Oreal USA, Inc.*, 855 F. App'x 701, 715 (Fed. Cir. 2021) (precluding invalidity defenses, finding that the defendant “could have reasonably raised in the post-grant review the prior-art combination it raised here.”). In cases interpreting similar language in the AIA regarding *inter partes* review, courts have held that the phrase “reasonably could have raised” refers to prior art “that a petitioner actually knew about or that a skilled searcher conducting a diligent search reasonably could have been expected to discover.” *Palomar Techs., Inc. v. MRSI Sys., LLC*, 373 F. Supp. 3d 322, 331 (D. Mass. 2019).

In *GREE, Inc. v. Supercell Oy*, a district court applied a “broad” estoppel with respect to prior art that was not raised in a post-grant review, recognizing that “a petitioner can bring a broad number of grounds in its PGR petition in its attempt to invalidate another’s patent.” 2020 WL 4999689 at *5, Civ. No. 2:19-CV-00071-JRG-RSP (E.D. Tex. July 9, 2020), *report and recommendation adopted*, 2020 WL 4937111 (E.D. Tex. Aug. 24, 2020). The court

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estopped the defendant from asserting two prior art references that it knew about before filing for post-grant review, holding that “[e]ven though it chose not to include these references in its petition, it reasonably could have raised them.” *Id.* at *4. The court also precluded the defendant from raising invalidity defenses with respect to prior art references that were not discovered until later. *Id.* at *4-*6. The court reasoned that “when a reference is found in a later prior art search, there is a reasonable inference that it could have been found earlier by a skilled searcher.” *Id.* at *5 (citing *Wi-LAN Inc. v. LG Elecs., Inc.*, 421 F. Supp. 3d 911, 925-26 (S.D. Cal. 2019)). The defendant admitted that “it did not conduct a prior art search before filing its petition for PGR.” *Id.*¹⁴

2. MAK System

David Baker, the co-founder of GMG, admitted that he was aware of the MAK System as early as 2013. RX-0316C (Baker DWS) at Q/A 15; CX-0844C (Baker Dep. Tr.) at 17:1-18:7. When GMG prepared to file for post-grant review of the '720 patent in 2018, a prior art search commissioned by GMG identified the MAK System as a potential prior art reference. RX-0336 (Baker RWS) at Q/A 3-5; RX-0337. Jason Baker, GMG’s vice president of marketing, contacted MAK Grills to seek further information about the operation of the MAK System but the request was refused. *Id.* at Q/A 6-7; CX-0843C (J. Baker Dep. Tr.) at 89:6-22. GMG did not identify the MAK System in any of its post-grant review petitions. *See* PGR2019-00024 Decision at 10; PGR2019-0036 Decision at 9.

¹⁴ A more extensive discussion of the case law relevant to estoppel for post-grant reviews is set forth in Order No. 9 (Mar. 18, 2021).

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Traeger argues that the record shows that GMG could have identified the MAK System in one of its post-grant review petitions and accordingly, GMG is estopped from now asserting invalidity based on the MAK System. CIB at 61-67.

GMG argues that it could not have identified the MAK System in its post-grant review petitions because the details of the operation of the MAK System are not discernible by inspection of a grill or through public documentation—in particular whether the MAK System uses a “cloud computing platform” or “cloud service,” and whether certain signals are sent. RIB at 41-42. GMG cites regulations regarding post-grant proceedings requiring that a petition specify “where each element of the claim is found in the prior art.” 37 C.F.R. § 42.204(b)(4). In addition, the PTAB will not institute a post-grant review proceeding unless it is “more likely than not” that at least one of the claims is unpatentable. 35 U.S.C. § 324(a). GMG relies on the precedent in *Shaw Indus. Group, Inc. v. Automated Creel Sys., Inc.*, where the Federal Circuit held that no estoppel would apply to references that were cited in an *inter partes* review petition but where the PTAB only instituted review on other references. 817 F.3d 1293, 1300 (Fed. Cir. 2016).¹⁵ GMG argues that it could not have identified the MAK System in its petition for post-grant review because it did not have evidence that each element of a claim was present, and accordingly, no estoppel should apply. RIB at 42-44.

Traeger argues that estoppel is appropriate because petitioners for post-grant review are required to conduct a reasonably diligent search for prior art before filing. CIB at 64-65 (citing 35 U.S.C. § 325(e)(2); *Olaplex v. L'Oréal USA, Inc.*, 855 F. App'x at 715); *GREE, Inc. v.*

¹⁵ *Shaw* has been abrogated by the Supreme Court’s decision in *SAS Institute, Inc. v. Iancu*, which ended the PTAB’s practice of instituting review on less than all of the grounds raised in a petition for *inter partes* review (or post-grant review). 138 S. Ct. 1348 (2018).

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Supercell Oy, 2020 WL 4999689, at *4). Traeger submits that GMG knew about the MAK System for years before filing for post-grant review and did not even obtain a sample of a MAK Grills product. CIB at 65. Traeger further submits that “packet sniffing” technology and other investigative techniques could have been used to observe communications between the components of the MAK System, pointing to similar analysis conducted by Dr. Shoemake. *See* CX-1005C (Shoemake RWS) at Q/A 26-28. Traeger submits that the PTAB has subpoena power that would have allowed GMG to obtain confidential information regarding the MAK System, if necessary. CIB at 66. Traeger argues that GMG misinterprets the precedent in *Shaw Indus. Group, Inc. v. Automated Creel Sys., Inc.*, because in that case the references at issue were presented in a petition but were not part of the PTAB’s institution. 817 F.3d at 1300. Traeger contends that if GMG had identified the MAK System as part of its petition, even without explicit evidence that each limitation was present, the PTAB would still have been required to institute the petition under the Supreme Court’s precedent in *SAS Institute, Inc. v. Iancu*, 138 S. Ct. 1348 (2018). CIB at 67.

Based on the evidence and arguments of the parties, the undersigned finds that GMG is estopped from asserting invalidity in this proceeding based on the MAK System pursuant to 35 U.S.C. § 325(e)(2). There is no dispute that the MAK System was known to GMG as a competitor product using Wi-Fi to control a grill, and the MAK System was also identified in the prior art search that GMG commissioned before filing the post-grant review petition. *See* RX-0316C (Baker DWS) at Q/A 15; CX-0844C (Baker Dep. Tr.) at 17:1-18:7; RX-0336 (Baker RWS) at Q/A 3-5; RX-0337. Despite this knowledge of the MAK System, GMG chose not to include the MAK System in its post-grant review petitions. GMG contends that it needed more information to include the MAK System in its petition, but the record shows that GMG was not

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diligent in pursuing that information—GMG did not even purchase and inspect a MAK Grill product. Moreover, the evidence does not support GMG’s contention that confidential information from MAK Grills would have been necessary to file a petition. Several of the references identified in GMG’s post-grant review petitions disclose less than all of the limitations of the asserted claims. *See* PGR2019-00024 Decision at 20-23 (describing Henderson, Amer, Tucker, and Logue references); PGR2019-0036 Decision at 20-24 (describing Henderson, Porter, Ebrom, GMG Publication, Amer, and Logue references). Based on this record, the undersigned finds that GMG could have identified the MAK System in one of its post-grant review petitions. Because it chose not to include the MAK System in the post-grant reviews that resulted in final written decisions, GMG is now precluded from asserting invalidity based on the MAK System.

3. Fireboard

Jason Baker testified that he was aware of the Fireboard product at least by 2017. CX-0843C (J. Baker Dep. Tr.) at 58:22-59:16. There is no evidence that GMG pursued any information regarding the Fireboard product before filing for post-grant review, and this product was not identified in the prior art search that GMG commissioned. RX-0337. GMG did not identify the Fireboard product in any of its post-grant review petitions. *See* PGR2019-00024 Decision at 10; PGR2019-0036 Decision at 9.

For the same reasons discussed above with respect to the MAK System, the undersigned finds that GMG is precluded from asserting invalidity based on the Fireboard product in this proceeding.¹⁶ There is no evidence that GMG made any attempt to collect information about the

¹⁶ GMG’s arguments with respect to the Fireboard product are the same as its arguments with respect to the MAK System. *See* RIB at 41-46; RRB at 26-28.

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Fireboard product for a post-grant review petition, and this course of conduct cannot satisfy the requirements for a “diligent” search. GMG knew of the existence of the Fireboard product, and the publicly available information would have been sufficient to identify it in a petition for post-grant review.¹⁷

For the reasons discussed above, the undersigned finds that GMG is precluded from asserting invalidity of any claims of the ’720 patent in view of the MAK System or the Fireboard product.

VII. INEQUITABLE CONDUCT

GMG contends that the claims of the ’720 patent are unenforceable for inequitable conduct based on the alleged failure to name the correct inventors. RIB at 56-97. In particular, GMG alleges that Michael Colston is not the sole inventor of the ’720 patent and that Traeger intentionally deceived the Patent Office by omitting at least David Johnson of DornerWorks and Wes Gilpin of Oven Bits as co-inventors. *Id.*

A. Factual Background

Michael Colston was the director of product line management at Traeger in 2014, when he led the development of Traeger’s “WiFIRE-enabled” cloud-connected wood pellet grills. CX-0842 (Colston DWS) at Q/A 5-6. In his witness statement, Mr. Colston explains that he conceived of the ideas claimed in the ’720 patent between August and December 2014. *Id.* at Q/A 12-14. In September 2014, Mr. Colston hired an engineering firm, Tekna, to help with the industrial design and mechanical engineering of Traeger’s grills. *Id.* at Q/A 17. In November

¹⁷ GMG’s argument that it needed evidence that a prior art system met each limitation of the claims raising it in post-grant review is inconsistent with its invalidity contentions in the present investigation, where GMG has admitted that the Fireboard product alone fails to meet the preamble limitations of any claim. *See* RIB at 52-53.

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2014, he hired DornerWorks to help with electrical engineering and software development. *Id.* In June 2015, he hired Oven Bits to help with software development for Traeger's mobile app. *Id.*

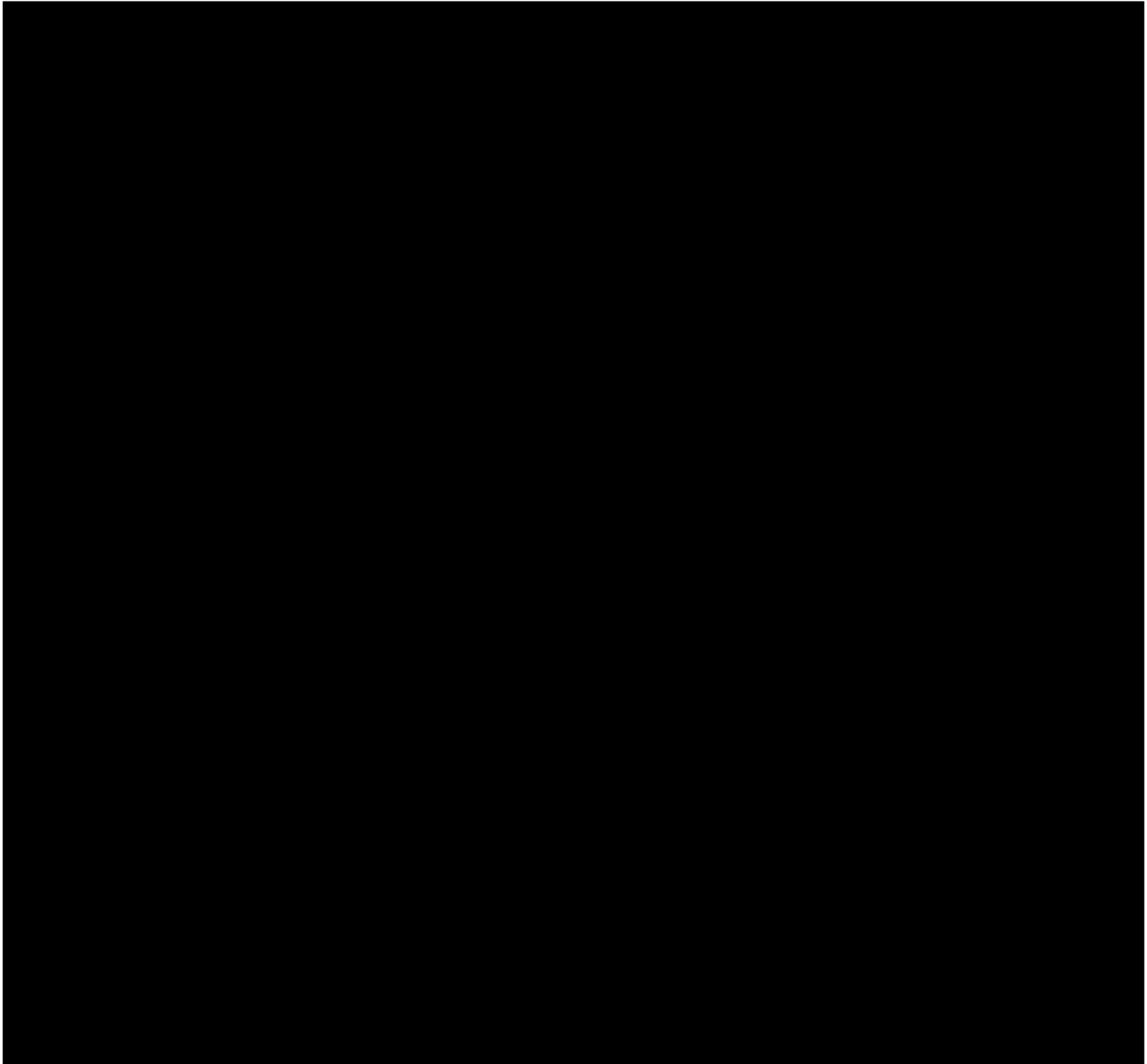
DornerWorks recommended the use of the Texas Instruments CC3200 microprocessor for Traeger's grills. CX-1010C (Johnson RWS) at Q/A 26-27; Tr. (Colston) at 53:7-12. David Johnson, a DornerWorks engineer, recommended the use of [REDACTED], and he wrote the firmware source code for communications between the grill and the server. CX-0842 (Colston DWS) at Q/A 23; Tr. (Johnson) at 399:9-21. In developing the [REDACTED] [REDACTED] for the Traeger grills, Mr. Johnson worked closely with Wes Gilpin, a software developer at Oven Bits, who was leading the development of Traeger's mobile app. *Id.*; CX-1010C (Johnson RWS) at Q/A 80; Tr. (Johnson) at 399:2-400:2.

Mr. Colston submits that the work of Tekna, DornerWorks, and Oven Bits on Traeger's WiFIRE-enabled grill were based on his ideas. CX-1006C (Colston RWS) at Q/A 6-8. He describes a whiteboard session in December 2014 involving Tekna and DornerWorks, where they discussed options for the architecture of the Traeger system. *Id.* at Q/A 14-16. Following that session, Tekna created a diagram showing the basic architecture of the system, describing control functions at the grill and connections between a grill controller, mobile device, and cloud server. *Id.* at Q/A 18-19.

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JX-0071C.003 (presentation dated December 11, 2014). He also describes slide decks that he prepared for Traeger management in 2015 regarding the design for the WiFIRE-enabled grill. CX-1006C (Colston RWS) at Q/A 20-36; CX-0490C. With respect to Oven Bits, Mr. Colston describes a “Statement of Work” document (the “Oven Bits SOW”) sent in March 2015 defining the project that Oven Bits was hired to perform for Traeger. *Id.* at Q/A 38-45; CX-0463C. He explains that the Oven Bits SOW was prepared by Oven Bits to describe the design ideas that he had told them to implement. *Id.* at Q/A 46. The SOW describes specific features for the Traeger App, including 



CX-0463C.0003.

Mr. Johnson and Mr. Gilpin implemented the source code for establishing connections between the Traeger WiFIRE-enabled grill, Traeger App, and Traeger Server. CX-1010C (Johnson RWS) at Q/A 83. In a May 2015 email, Mr. Johnson identifies [REDACTED]



[REDACTED]. JX-0207C. In a June 2015 email to Mr. Gilpin, Mr. Johnson describes his “thoughts” regarding specific steps for [REDACTED]

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[REDACTED]. JX-0061C. Mr. Gilpin sent a follow-up email in July 2015 discussing issues regarding [REDACTED]. JX-0131C.

A working prototype of Traeger's first WiFIRE-enabled grill was completed by August 2015. CX-0842 (Colston DWS) at Q/A 24. The first provisional patent applications related to '720 patent were filed on October 23, 2015. See U.S. Provisional Application Nos. 62/245,549, 62/245,535, and 62/245,530.

B. Legal Standards

A patent can be held to be unenforceable for inequitable conduct when the named inventors deliberately conceal the involvement of an unnamed co-inventor in their application for a patent. *Frank's Casing Crew & Rental Tools, Inc. v. PMR Techs., Ltd.*, 292 F.3d 1363, 1376-77 (Fed. Cir. 2002). Inequitable conduct must be proven by clear and convincing evidence, which requires that "the specific intent to deceive must be 'the single most reasonable inference able to be drawn from the evidence'" *Therasense Inc. v. Becton Dickinson and Co.*, 649 F.3d 1276, 1290 (Fed. Cir. 2011) (quoting *Star Scientific Inc. v. R.J. Reynolds Tobacco Co.*, 537 F.3d 1357, 1366 (Fed. Cir. 2008).

Inventorship is a question of law rooted in conception. *Ethicon, Inc. v. United States Surgical Corp.*, 135 F.3d 1456, 1460 (Fed. Cir. 1998), *cert. denied*, 525 U.S. 923 (1998). "Conception is the touchstone of inventorship." *Burroughs Wellcome Co. v. Barr Labs., Inc.*, 40 F.3d 1223, 1227 (Fed. Cir. 1994), *cert. denied*, 516 U.S. 1070 (1996). It is the "formation in the mind of the inventor, of a definite and permanent idea of the complete and operative invention as it is hereafter to be applied in practice." *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1376 (Fed. Cir. 1986). "An idea is sufficiently 'definite and permanent' when 'only

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ordinary skill would be necessary to reduce the invention to practice, without extensive research or experimentation.” *Ethicon*, 135 F.3d at 1460.

A joint invention is “the product of collaboration,” and requires that “each of the inventors work on the same subject matter and make some contribution to the inventive thought and to the final result.” *Vanderbilt Univ. v. ICOS Corp.*, 601 F.3d 1297, 1302 (Fed. Cir. 2010) (quoting *Monsanto Co. v. Kamp*, 269 F. Supp. 818, 824 (D.D.C. 1967)) (internal quotation marks omitted). “It is not necessary that the entire invention concept should occur to each of the joint inventors” *Vanderbilt*, 601 F.3d at 1302 (quoting *Monsanto*, 269 F. Supp. at 824). However, “[o]ne who simply provides the inventor with well-known principles or explains the state of the art without ever having a firm and definite idea of the claimed combination as a whole does not qualify as a joint inventor.” *Nartron Corp. v. Schukra U.S.A. Inc.*, 558 F.3d 1352, 1356 (Fed. Cir. 2009) (quoting *Ethicon*, 135 F.3d at 1460); *see also Fina Oil & Chem. Co. v. Ewen*, 123 F.3d 1466, 1473 (Fed. Cir. 1997) (“[A] person will not be a coinventor if he or she does no more than explain to the real inventors concepts that are well known and the current state of the art.”); *Hess v. Advanced Cardiovascular Sys., Inc.*, 106 F.3d 976, 977, 981 (Fed. Cir. 1997) (denying the inventorship claim of an individual who was “doing nothing more than explaining to the inventors what the then state of the art was and supplying a product for them to use in their invention.”). One who designs a product for the named inventor is not necessarily a co-inventor where the “hardware design was dictated explicitly by . . . specifications” provided by the inventor, and where the “design of circuits to carry out [the inventor’s] idea was simply the exercise of the normal skill expected of an ordinary chip designer, which did not involve any inventive acts.” *Sewall v. Walters*, 21 F.3d 411, 415 (Fed. Cir. 1994); *see also Shatterproof Glass Corp. v. Libbey-Owens Ford Co.*, 758 F.2d 613, 624 (Fed. Cir. 1985) (“An inventor ‘may

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use the services, ideas and aid of others in the process of perfecting his invention without losing his right to a patent.” (quoting *Hobbs v. U.S. Atomic Energy Comm'n.*, 451 F.2d 849, 864, 171 USPQ 713, 724 (5th Cir.1971))).

In general, “[t]he inventors as named in an issued patent are presumed to be correct.” *Nartron*, 558 F.3d at 1356 (quoting *Hess*, 106 F.3d at 980). Proof of joint inventorship requires clear and convincing evidence. *Vanderbilt*, 601 F.3d at 1305.

C. Improper Inventorship

GMG alleges that Mr. Johnson and Mr. Gilpin were co-inventors of the '720 patent because they conceived and implemented numerous features of the Traeger WiFIRE-enabled grills that correspond to limitations in the patent claims. RIB at 71-84.¹⁸ GMG identifies three features of the Traeger grills that were allegedly conceived by Mr. Johnson and Mr. Gilpin: “(1) the provisioning, authentication and account creation process involving the mobile device and the grill; (2) the software application and protocol using ████████ to relay communications between the grill and the cloud server; and (3) the various indicators and notifications of network communication and communicable connection between the grill, cloud server and mobile device.” *Id.* at 71. These three features are addressed below in the context of the corresponding claim limitations in the '720 patent:

¹⁸ GMG’s briefing begins with arguments addressing the technical capabilities of Traeger and Mr. Colston with respect to the development of the Traeger WiFIRE-enabled grills, arguing that the evidence does not support Mr. Colston’s sole inventorship. RIB at 60-71. The undersigned finds that GMG’s framing of the argument improperly places the burden on Traeger to prove sole inventorship, when the law requires a presumption that the named inventors are correct. *See Hess*, 106 F.3d at 980 (recognizing that “[t]he inventors as named in an issued patent are presumed to be correct,” and finding that “it would be inappropriate to permit a lower standard than clear and convincing evidence.”). Accordingly, GMG’s arguments will be considered within the framework of its allegations that Mr. Johnson and Mr. Gilpin were co-inventors, placing the burden on the party challenging the inventors named on the patent.

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1. Previously establishing an “initial, direct connection”

Claim 12 of the '720 patent provides that the “one or more mobile devices have previously established an initial, direct connection with the electronically-controlled appliance.” GMG contends that Mr. Johnson conceived of this feature of the claimed invention when he investigated options for how to establish a connection between the Traeger Grill and the Traeger Server, and he worked with Mr. Gilpin to implement the provisioning process that was used in the Traeger System. RIB at 73-77.

GMG’s arguments primarily rely on two emails authored by Mr. Johnson: a May 15, 2015 email entitled “Wifi Provisioning and Grill Registering” (JX-0207C), and a June 29, 2015 email entitled “RE: FTP and Uniflash” (JX-0061C). *See* RX-0315C (Williams DWS) at Q/A 122-26. In the May 2015 email, Mr. Johnson describes three “possible options” for provisioning the grill. JX-0207C. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] In the June 2015 email, Mr. Johnson describes

more details of the provisioning process, consistent with the second option described in the May

2015 email. JX-0061C; *see* RX-0315C (Williams DWS) at Q/A 125 (explaining contents of

June 2015 email). The June 2015 email is addressed to Mr. Gilpin, and it describes [REDACTED]

[REDACTED]

[REDACTED]

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[REDACTED]
[REDACTED]. *Id.*; see RX-0315C (Williams DWS) at Q/A 126 (explaining steps described in June 2015 email).

GMG argues that this evidence shows that Mr. Johnson (and not Mr. Colston) conceived of the idea for establishing an “initial, direct connection” between the mobile device and the grill before establishing independent connections to the cloud computing platform. RIB at 76-77. According to Mr. Williams, there were many other ways to implement a provisioning process and the design was not inherent in the microprocessor used for by Traeger. RX-0315C (Williams DWS) at Q/A 130, 131. Mr. Williams offers his opinion that Mr. Johnson’s implementation required the application of “the creativity of the human mind to identify, evaluate, and select the options and functions for provisioning and authenticating the grill.” *Id.* at Q/A 132. GMG thus argues that Mr. Johnson must be a co-inventor of claim 12, because he conceived the “initial, direct connection” limitation. RIB at 76-77.

In rebuttal, Traeger submits that the idea for an “initial, direct connection” was Mr. Colston’s, citing witness testimony and documents that pre-date Mr. Johnson’s emails. CIB at 81-84. In the Oven Bits SOW draft dated March 27, 2015, an “On-boarding” procedure is described: “Upon initial use, the app will facilitate a data connection between the grill and the mobile phone. This process will include a ‘handshake’ operation to connect the grill to its permanent internet connection: the user’s WiFi connection.” CX-0463C at 3. In Mr. Colston’s witness statement, he explains that he had the idea to provide WiFi credentials through the user’s mobile phone rather than implementing a keyboard on the grill. CX-1006C (Colston RWS) at Q/A 12. In Mr. Johnson’s witness statement, he explains that the idea for an “initial, direct connection” between the mobile device and the grill was part of the project before he joined the

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team. CX-1010C (Johnson RWS) at Q/A 44-47; *see* Tr. (Johnson) at 386:5-11 (“The -- the idea that the mobile phone would be used to interact with the grill to get it connected to -- to WiFi was part of the project since the beginning.”). With respect to the three alternatives described in his May 2015 email, Mr. Johnson explains that “all the alternatives that were considered required a direct connection to the grill.” CX-1010C (Johnson RWS) at Q/A 55; *see* Tr. (Johnson) at 349:6-441:4 (describing content of May 2015 email). Mr. Johnson explains his role in the project as being hired “to implement [Mr. Colston’s] ideas in hardware and software.” *Id.*

Based on the evidence of record, the undersigned finds that GMG has failed to show that Mr. Johnson or Mr. Gilpin were co-inventors of the “initial, direct connection” limitation of claim 12. There is no dispute that Mr. Johnson and Mr. Gilpin implemented the source code for the first Traeger WiFIRE-enabled grill and the Traeger App, including the steps that were used to establish an initial connection between the mobile device and the grill, and to use that connection to connect to the user’s home WiFi network. But the evidence unequivocally shows that the idea for an “initial, direct connection” between the mobile device and the grill was part of the Traeger project before Mr. Johnson and Mr. Gilpin were involved.¹⁹ Mr. Colston and Mr. Johnson offer consistent testimony on this issue. *See* CX-1006C (Colston RWS) at Q/A 12; CX-1010C (Johnson RWS) at Q/A 44-47; *see* Tr. (Johnson) at 386:5-11. The Oven Bits SOW described this feature of the project in March 2015, before either of the emails that originated from Mr. Johnson. The undersigned thus finds that GMG has failed to clearly or convincingly show that Mr. Johnson or Mr. Gilpin were co-inventors of the “initial, direct connection” limitation of

¹⁹ As discussed *supra* in the context of invalidity, the “initial, direct connection” of claim 12 is not a novel feature of the claimed invention—provisioning processes were known in the prior art and were disclosed in at least the Amer reference. *See supra*, section VI.B.3.c.

claim 12.²⁰

2. Relaying communications

GMG contends that Mr. Johnson and Mr. Gilpin were co-inventors of claim 3 of the '720 patent, which recites a limitation requiring a “software application” that is “configured to relay communications between the cloud computing platform and the electronically-controlled appliance.” RIB at 81-83. GMG identifies the [REDACTED] of the Traeger System as the feature that corresponds to the claim 3 limitation and submits that Mr. Johnson was responsible for the decision to [REDACTED]. *See* Tr. (Johnson) at 399:9-21 (Mr. Johnson explaining that he recommended the [REDACTED] and was responsible for the decision to [REDACTED]). GMG identifies a presentation that was prepared by DornierWorks in February 2015 to pitch their services to Traeger with a slide identifying [REDACTED] JX-0203C.0005; *see* RX-0329C (Isenhoff Dep. Tr.) at 108:8-16, 113:6-15 (explaining background of DornierWorks presentation). GMG submits that Mr. Johnson conceived of the idea for using [REDACTED], made the decision to use it and, along with Mr. Gilpin, wrote the source code to implement [REDACTED] in the Traeger System. RIB at 81-83. GMG thus contends that at least Mr. Johnson should be named as a co-inventor for claim 3. *Id.*

Traeger submits that the idea to relay communications “represents the core of

²⁰ GMG further argues that Mr. Johnson and Mr. Gilpin conceived of certain related limitations of claims in the '833 patent. RIB at 77-81. The undersigned finds that these arguments do not affect the inventorship of any claim in the '720 patent, however. The “attempting to communicate” and “permitted to communicate” limitations of the '833 patent are not recited in any claims of the '720 patent. Even if Mr. Johnson and Mr. Gilpin were proper co-inventors for these '833 patent limitations, it would not affect inventorship for any claim of the '720 patent. Moreover, any inventorship issue with respect to these limitations of the '833 patent would not affect the enforceability of the '720 patent, because there is no “immediate and necessary” relation between these '833 patent limitations and any claim of the '720 patent. *See Consol. Aluminum Corp. v. Foseco Int'l Ltd.*, 910 F.2d 804, 808-12 (Fed. Cir. 1990).

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Mr. Colston's invention." CIB at 85; *see* CX-1006C (Colston RWS) at Q/A 12 ("This was the very core of my idea, that the cloud would include software to relay communications between the grill and the phone."). Traeger identifies a December 2014 presentation depicting communications between a mobile device, cloud server, and grill. JX-0071C; *see* CX-1006C (Colston RWS) at Q/A 18 (Mr. Colston explains that the diagrams in this presentation "show my idea of relaying two-way communications between the cloud and the grill."). Mr. Johnson testified that he understood from a feature list received from Traeger (JX-0055C) that relaying communications between the cloud platform and the grill was part of the project before he began his work. Tr. (Johnson) at 413:19-414:24 (identifying the "wireless control" feature as requiring the cloud computing platform to relay communications). Traeger submits that this testimony is corroborated by Shawn Isenhoff, a DornerWorks manager who explained that "[Mr. Colston] identified how this grill needed to operate as far as collection of data, what gets pushed to the phone, what gets pushed to the grill. So the bigger picture vision of what this product needs to be." RX-0329C (Isenhoff Dep. Tr.) at 256:8-257:12. Traeger argues that the "relay communications" limitation of claim 3 is broader than [REDACTED] implemented by Mr. Johnson. CRB at 35-36.

Based on the evidence of record, the undersigned finds that GMG has failed to show that Mr. Johnson or Mr. Gilpin were co-inventors of the "relay communications" limitation of claim 3. There is no dispute that Mr. Johnson identified [REDACTED] and together with Mr. Gilpin implemented the source code for relaying communications from the Traeger App between the Traeger Server and Traeger's WiFIRE-enabled grills. But the "relay communications" limitation of claim 3 is not limited to [REDACTED]. The specification of the '720 patent only describes a relayed communication in general terms, identifying an "indirect

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communication 117” that is relayed “between the cloud computing platform 101 and the electronically-controlled appliance 120.” ’720 patent at 13:15-18. This feature of relaying communications between the cloud and the grill is depicted in the December 2014 presentation identified by Mr. Colston—in the “Ayla implementation” there is no direct connection between the mobile device and the grill, requiring that any communications be relayed through the cloud. *See* JX-0071C.002. This presentation shows that the idea of relaying communications was part of the Traeger design before Mr. Johnson became involved, and this is consistent with Mr. Johnson’s own testimony. *See* CX-1010C (Johnson RWS) at Q/A 69-73; Tr. (Johnson) at 413:19-414:24. GMG has identified no clear evidence in the record showing that Mr. Johnson conceived of the idea of relaying communications from the cloud computing platform to the grill. Accordingly, the undersigned finds that Mr. Johnson or Mr. Gilpin are not co-inventors of “relay communications” limitation of claim 3.

3. Indicators/Notifications of communication status

GMG contends that Mr. Johnson and Mr. Gilpin were co-inventors of the “in network communication” and “communicably connected” limitations of claims 1, 12, and 16 of the ’720 patent. RIB at 83-84. GMG relies on the same evidence discussed above, showing that Mr. Johnson was responsible for identifying and choosing to use [REDACTED] and that he and Mr. Gilpin wrote the source code to implement [REDACTED] in the Traeger System. *Id.* GMG further contends that the indications in the display of the Traeger Grill and the Traeger App were developed by others at DornerWorks and Oven Bits. *Id.* (citing Tr. (Johnson) at 405-07; RX-0328C (Gilpin Dep. Tr.) at 45-47, 213-14). GMG cites the testimony of Mr. Gilpin stating that he only received high-level specifications from DornerWorks. RX-0328C (Gilpin Dep. Tr.) at 33-35, 287-93. GMG cites the testimony of Mr. Johnson admitting

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that there was no specific instruction from Mr. Colston to implement an input indicating that the grill was in connection. Tr. (Johnson) at 405:16-20. GMG argues that Mr. Colston was only involved at a high level and had little if any involvement in the development of the mobile App and the communication protocol. RIB at 84.

Traeger cites the testimony of Mr. Johnson and Mr. Gilpin that the claimed indications and notifications were part of the project specification before they joined. CIB at 89 (citing CX-1010C (Johnson RWS) at Q/A 78-79; Tr. (Johnson) at 404-05; RX-0328C (Gilpin Dep. Tr.) at 279-85. Mr. Colston testifies that he conceived of the idea for these indications and notifications by December 2014. CX-1006C (Colston RWS) at Q/A 12. Traeger argues that GMG's contentions with respect to these limitations are "both incoherent and inaccurate," relying on unconnected testimony regarding different DornerWorks and Oven Bits employees. CRB at 36-38.

Based on the evidence of record, the undersigned finds that GMG has failed to show that Mr. Johnson or Mr. Gilpin were co-inventors of the "in network communication" or "communicably connected" limitations of claims 1, 12, and 16 of the '720 patent. As discussed above, there is no dispute that Mr. Johnson and Mr. Gilpin implemented the source code for the communications and indications in the Traeger System, but they both disclaim inventorship of these features. See CX-1010C (Johnson RWS) at Q/A 78-79; RX-0328C (Gilpin Dep. Tr.) at 279-85. The undersigned agrees with GMG that there is no reliable documentary evidence showing when Mr. Colston allegedly conceived of these features of the Traeger System, but there is a legal presumption that Mr. Colston is the correct inventor. See *Hess*, 106 F.3d at 980. At the hearing, Mr. Johnson explained that these features may not have been documented because these notifications are "standard IoT [Internet of Things] practice." Tr. (Johnson) at

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405:3-15.²¹ It is GMG’s burden to prove improper inventorship, and GMG has failed to identify any clear evidence in the record showing that Mr. Johnson or Mr. Gilpin conceived the “in network communication” or “communicably connected” limitations.²² Accordingly, the undersigned finds that GMG has failed to clearly or convincingly show that Mr. Johnson or Mr. Gilpin were co-inventors of the “in network communication” or “communicably connected” limitations of the ’720 patent.²³

D. Deceptive Intent

GMG alleges that Traeger and Mr. Colston intended to deceive the Patent Office by omitting Mr. Johnson and Mr. Gilpin as named inventors. RIB at 84-97. GMG cites evidence that Traeger was involved in a dispute with Tekna over the inventorship of other patents related to the development of the Traeger WiFIRE-connected grills, which resulted in certain additional inventors being added to Traeger patents after the Tekna employees were hired by Traeger. *Id.* at 84-85, 86-92. GMG relies on the testimony of Mike Nellenbach, a Tekna employee, who contends that Traeger did not have the resources to develop the technology for the Traeger

²¹ As discussed above in the context of invalidity, the “communicably connected” notification is not a novel feature of the claimed invention—notifications indicating that a device is connected were known in the prior art and were used in at least the MAK Grills system. *See supra*, section VI.B.1.d.

²² As discussed above in the context of the domestic industry requirement, the Traeger System does not practice the “first input” limitation of claim 16. *See supra*, section V.C.3.b. Accordingly, it is not clear that Mr. Johnson and Mr. Gilpin developed any source code embodying these limitations.

²³ GMG argues that the alleged inequitable conduct also applies to the “communicably connected” limitations of the ’833 patent, but the parties have not identified any difference between the scope of these limitations between the ’720 patent and the ’833 patent. *See* RIB at 83-84. Accordingly, the undersigned finds that GMG’s inventorship arguments with respect to these limitations in the ’833 patent would fail for the same reasons discussed herein with respect to the ’720 patent.

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WiFIRE-connected grills. *See* RX-0331C (Nellenbach Dep. Tr.) at 54-55. GMG submits that Traeger did not share its patent applications with Tekna, DornerWorks, or Oven Bits, despite their joint work on developing the Traeger WiFIRE-connected grills. RIB at 85-86. GMG argues that Traeger had an incentive to conceal the contributions of non-Traeger employees because it was seeking financial investments and sought to emphasize Traeger's innovation. *Id.* at 92-95. GMG argues that the testimony offered by Mr. Johnson is not credible because DornerWorks has a financial incentive to maintain a good working relationship with Traeger. *Id.* at 95-97.

Traeger argues that GMG cannot prove deceptive intent when Mr. Johnson and Mr. Gilpin do not claim to be co-inventors—Traeger argues that Mr. Colston's belief that he is the sole inventor is reasonable in these circumstances. CIB at 93-95. Traeger contends that the inventorship dispute with Tekna is unrelated to '720 patent, involving different patent families and different technology. CRB at 41-42. Traeger argues that GMG has mischaracterized the facts surrounding the dispute with Tekna, relying on the unfounded speculation of Tekna employees. *Id.* at 42-45. Traeger submits that the testimony of Mr. Colston and Mr. Johnson is reliable and consistent with the testimony of other witnesses—none of these witnesses identified Mr. Johnson or Mr. Gilpin as co-inventors. *Id.* at 45-47. Traeger argues that Mr. Nellenbach—the only fact witness who has challenged Mr. Colston's sole inventorship of the '720 patent—is biased against Traeger, because Traeger hired two employees away from Tekna. *Id.* at 47-48.

Based on the evidence of record, the undersigned finds that GMG has failed to prove deceptive intent. As discussed above, there is no clear evidence that Mr. Johnson or Mr. Gilpin were co-inventors of any claim of the '720 patent. Without such evidence, the undersigned cannot find that Mr. Colston or anyone at Traeger knew about the alleged contributions of

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Mr. Johnson or Mr. Gilpin and intentionally withheld their identities from the Patent Office. Although the Federal Circuit has recognized that “direct evidence of deceptive intent is rare” in cases of inequitable conduct, intent to deceive may be found only if it is “the single most reasonable inference able to be drawn from the evidence.” *Therasense*, 694 F.3d at 1290-91. GMG cites circumstantial evidence indicating that Traeger had an incentive to identify Mr. Colston as the sole inventor for the ’720 patent, but the undersigned cannot find that deceptive intent is the single most reasonable inference on this record. GMG’s circumstantial evidence cannot overcome the consistent testimony of Mr. Johnson and Mr. Gilpin disclaiming inventorship. GMG challenges the credibility of numerous witnesses, but there is no evidence that Mr. Gilpin or any Oven Bits employee had any financial incentive to disclaim inventorship, and their testimony is consistent with that of Mr. Colston and Mr. Johnson. *See* RX-0328C (Gilpin Dep. Tr.) at 293-95. GMG has not cited any precedent where a challenge to inventorship has been successful in the absence of affirmative testimony from the alleged co-inventors. Accordingly, the undersigned cannot find inequitable conduct on this record.

VIII. REMEDY AND BONDING

A. Limited Exclusion Order

Traeger seeks a limited exclusion order for the Accused Products. CIB at 97. Section 337(d) provides in pertinent part that if the Commission determines that there is a violation, “it shall direct that the articles concerned . . . be excluded from entry into the United States.” 19 U.S.C. § 337(d)(1). The Commission has broad discretion to select the form, scope and extent of the remedy imposed for violation of section 337. *E.g., Hyundai Elecs. Indus. Co. v Int’l Trade Comm’n*, 899 F.2d 1204, 1208-09 (Fed. Cir. 1990). In accordance with section 337(d), the

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undersigned recommends that a limited exclusion order issue if the Commission finds a violation of section 337.

B. Cease and Desist Order

Traeger seeks a cease and desist order, relying on Dr. Vander Veen's identification of commercial significant inventory. *See* CX-0840C (Vander Veen DWS) at Q/A 85. Section 337(f)(1) provides that the Commission may issue cease and desist orders to respondents found to be in violation. *See* 19 U.S.C. § 1337(f)(1). The "well-established purpose of cease and desist orders is to ensure complete relief to complainants when infringing goods are held in inventory in the United States and, therefore, beyond the reach of an exclusion order." *Certain Condensers, Parts Thereof and Prods. Containing Same, Including Air Conditioners for Automobiles Condensers*, Inv. No. 337-TA-334 (Remand), Comm'n Op. at 27 (Sept. 10, 1997). Under Commission precedent, such orders are traditionally issued to respondents that maintain commercially significant U.S. inventories of infringing products or have significant domestic operations that could undercut the remedy provided by an exclusion order. *See, e.g., Certain Stainless Steel Products, Certain Processes for Manufacturing or Relating to Same, and Certain Products Containing Same*, Inv. No. 337-TA-933, Comm'n Op. at 40 (June 9, 2016). In view of Traeger's un rebutted evidence of commercially significant inventory, the undersigned recommends that a cease and desist order issue if the Commission finds a violation of section 337.

C. Bond

If the Commission issues a remedy after considering the statutory public interest factors, the President of the United States may, within 60 days, disapprove the Commission's determination "for policy reasons;" if he does so, any remedy issued by the Commission "shall

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have no force or effect.” 19 U.S.C. § 1337(j)(2). During the 60-day period of Presidential review, imported articles otherwise subject to remedial orders are entitled to conditional entry under bond. 19 U.S.C. § 1337(j)(3). The amount of the bond is specified by the Commission and must be an amount sufficient to protect the complainant from injury. *Id.*; 19 C.F.R. § 210.50(a)(3). The Commission frequently sets a bond amount by calculating a price differential between domestic industry products and infringing products, or based upon a reasonable royalty. *Certain Table Saws Incorporating Active Injury Mitigation Tech. and Components Thereof*, Inv. No. 337-TA-965, Comm’n Op. at 13 (Feb. 1, 2017). Where there is neither information on the price of the subject merchandise nor information which would allow one to determine a reasonable royalty, the Commission has set the bond at 100% of the entered value of the imported infringing products. *Certain Energy Drink Products*, Inv. No. 337-TA-678, Comm’n Op. at 9 (Sept. 8, 2010). Complainants bear the burden of establishing the need for a bond, and the failure to carry that burden may result in no bond being imposed. *Certain Personal Data and Mobile Communication Devices and Related Software*, Inv. No. 337-TA-710, Comm’n Op. at 85 (Dec. 29, 2011).

Traeger seeks a bond of [REDACTED] of entered value based on an analysis performed by its expert Dr. Vander Veen, using a weighted average of the actual selling prices for all Accused Products and Traeger DI Products sold in [REDACTED]. *See* CX-0840C (Vander Veen DWS) at Q/A 90. GMG argues that Dr. Vander Veen’s analysis unreliable because it fails to directly compare products with similar features. RIB at 98-99. In addition, GMG argues that Traeger and GMG sell their products through different channels, with GMG selling only through dealers such as

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independent hardware stores, and Traeger selling direct-to-consumer and through big box retail stores. RRB at 50.²⁴

In consideration of the parties' arguments, the undersigned finds that Dr. Vander Veen's analysis represents a reliable estimate of the price differential between the Accused Products and the Traeger DI Products. Although it may have been possible to compute a more precise price differential between the Accused Products and the Traeger DI Products, there is no such analysis in the record. Accordingly, the undersigned recommends a bond that is [REDACTED] of entered value of the Accused Products

IX. CONCLUSIONS OF LAW

Based on the foregoing, and the record as a whole, it is my final initial determination that there is a violation of section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, in the importation into the United States, the sale for importation, and/or the sale within the United States after importation of certain cloud-connected wood-pellet grills and components thereof with respect to U.S. Patent No. 10,158,720 (the "'720 patent").

This determination is based on the following conclusions of law:

1. The Commission has subject matter jurisdiction over this investigation, *in personam* jurisdiction over Respondent, and *in rem* jurisdiction over the accused cloud-connected wood-pellet grills and components thereof.
2. There has been an importation into the United States, sale for importation, or sale within the United States after importation of the accused products by Respondent.
3. The accused products infringe claims 1 and 2 of the '720 patent.
4. The accused products do not infringe claims 12, 16, 21, and 22 of the '720 patent.

²⁴ GMG also relies on an analysis performed by its own expert, Vincent Thomas, RIB at 99-100, but Mr. Thomas did not appear at the hearing and his witness statement is not in evidence. *See* Respondents' Post-Hearing Exhibit List (identifying RX-0335C as "Withdrawn").

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5. Certain domestic industry products practice claims 1 and 2 of the '720 patent.
6. Respondent is estopped from challenging the invalidity of the '720 patent based on the asserted prior art.
7. The '720 patent is not unenforceable for inequitable conduct.

The record in this investigation is hereby certified to the Commission with this final initial determination and recommended determination. Pursuant to Commission Rule 210.38, the record further comprises the Complaint and exhibits thereto filed with the Secretary, and the exhibits attached to the parties' summary determination motions and the responses thereto. 19 C.F.R. § 210.38(a).

Pursuant to Commission Rule 210.42(c), this initial determination shall become the determination of the Commission 60 days after the service thereof, unless a party files a petition for review pursuant to Commission Rule 210.43(a), the Commission orders its own review pursuant to Commission Rule 210.44, or the Commission changes the effective date of the initial determination. 19 C.F.R. § 210.42(h)(6).

This initial determination is being issued with a confidential designation pursuant to Commission Rule 210.5 and the protective order in this investigation. Within ten days of the date of this document, the parties must jointly submit a statement to the attorney advisor for this investigation stating whether or not each party seeks to have any portion of this document redacted from the public version. Should any party seek to have any portion of this document redacted from the public version thereof, the parties shall attach to the statement a copy of a joint proposed public version of this document indicated with red brackets any portion asserted to contain confidential business. To the extent possible, the proposed redacting should be made electronically, in a PDF of the issued order, using the "Redact Tool" within Adobe Acrobat, wherein the proposed redactions are submitted as "marked" but not yet "applied." The parties'

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submission concerning the public version of this document should not be filed with the Commission Secretary.

SO ORDERED.

A handwritten signature in cursive script, appearing to read "Charles E. Bullock".

Charles E. Bullock
Chief Administrative Law Judge